Methodische und konzeptionelle Hinweise zur Entwicklung einer IVS-Rahmenarchitektur Straße für Deutschland

Ergänzende Anlagen

TECHNISCHE UNIVERSITÄT DARMSTADT

Fachbereich
Bauingenieurwesen und
Geodäsie

Fachgebiet
Verkehrsplanung und
Verkehrstechnik

Inhaltsverzeichnis

Anhang

A2.Anwendungsbeispiel (Ergänzungen)

A2.1. FRAME

Die nachfolgend dargestellten Screenshots sind im FRAME Selection Tool (FRAME 2012) gemacht worden und dokumentieren das Vorgehen im Anwendungsbeispiel.

A2.1.1. Functional Viewpoint

Schritt 1: Selection of User Needs

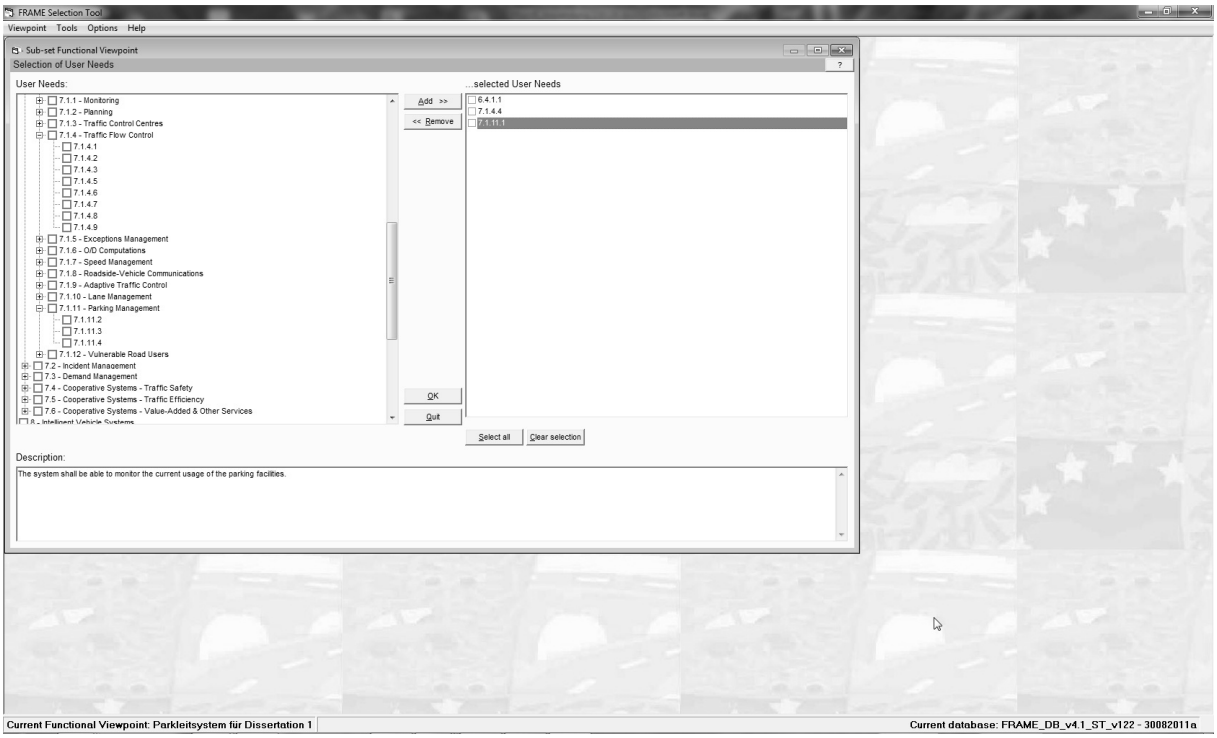

Bild 1: Selection of User Needs

Schritt 2: Selection of low level Functions

Bild 2: Selection of low level Functions

Schritt 3: Selection of Data Flows related to selected Functions

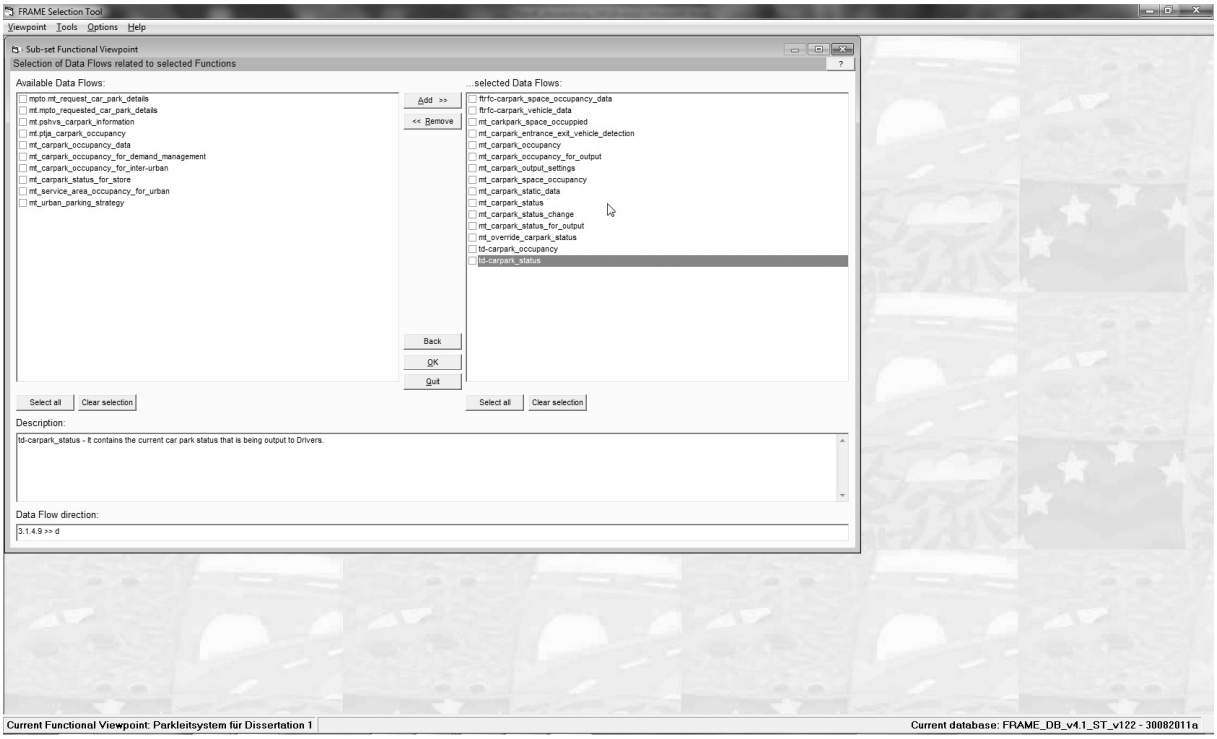

Bild 3: Selection of Data Flows related to Selected Functions

Schritt 4: Selection of Data Stores related to selected Data Flows

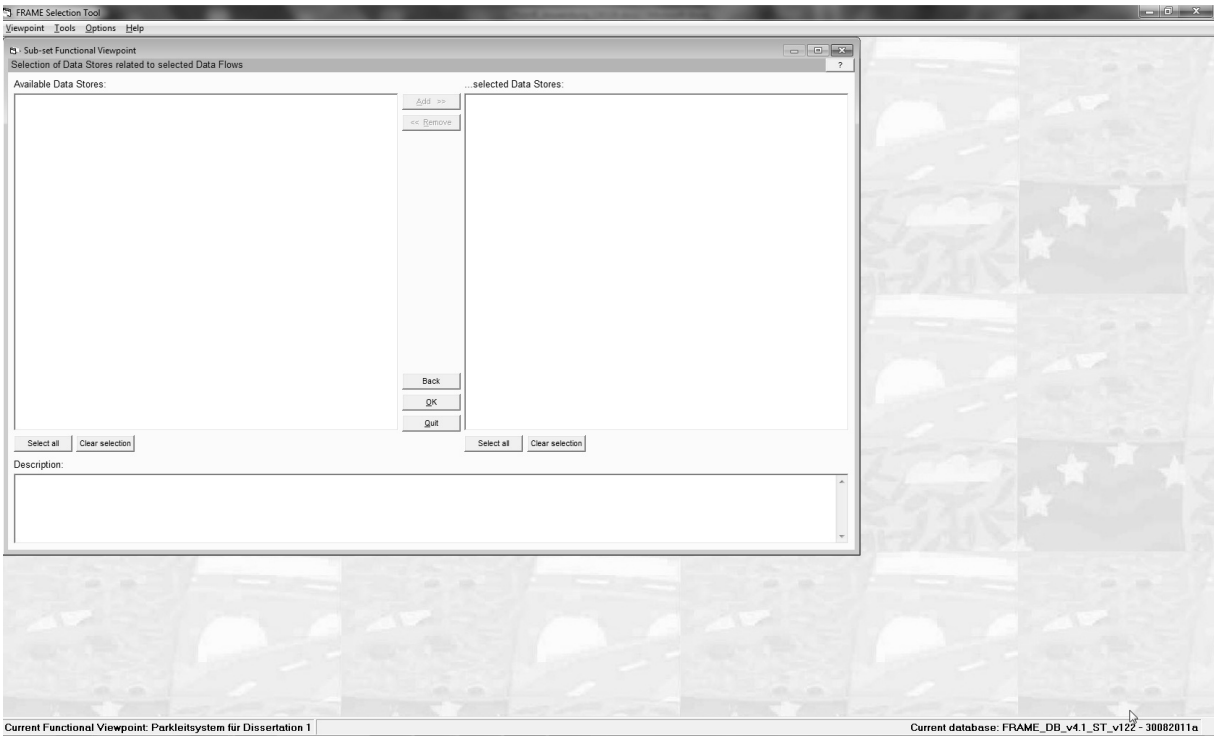

Bild 4: Selection of Data Stores related to selected Data Flows

Schritt 5: Selection of Data Flows related to selected Data Stores

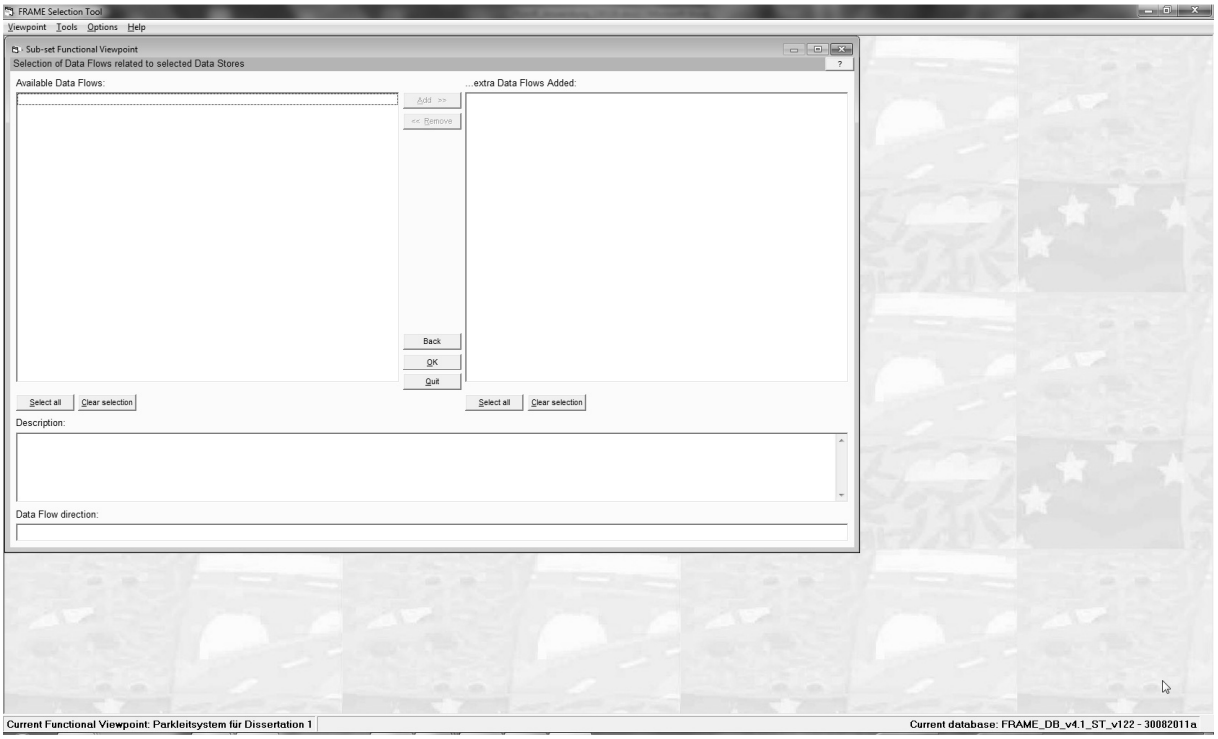

Bild 5: Selection of Data Flows related to selected Data Stores

Schritt 6: Selection of Terminators/Actors related to selected Data Flows

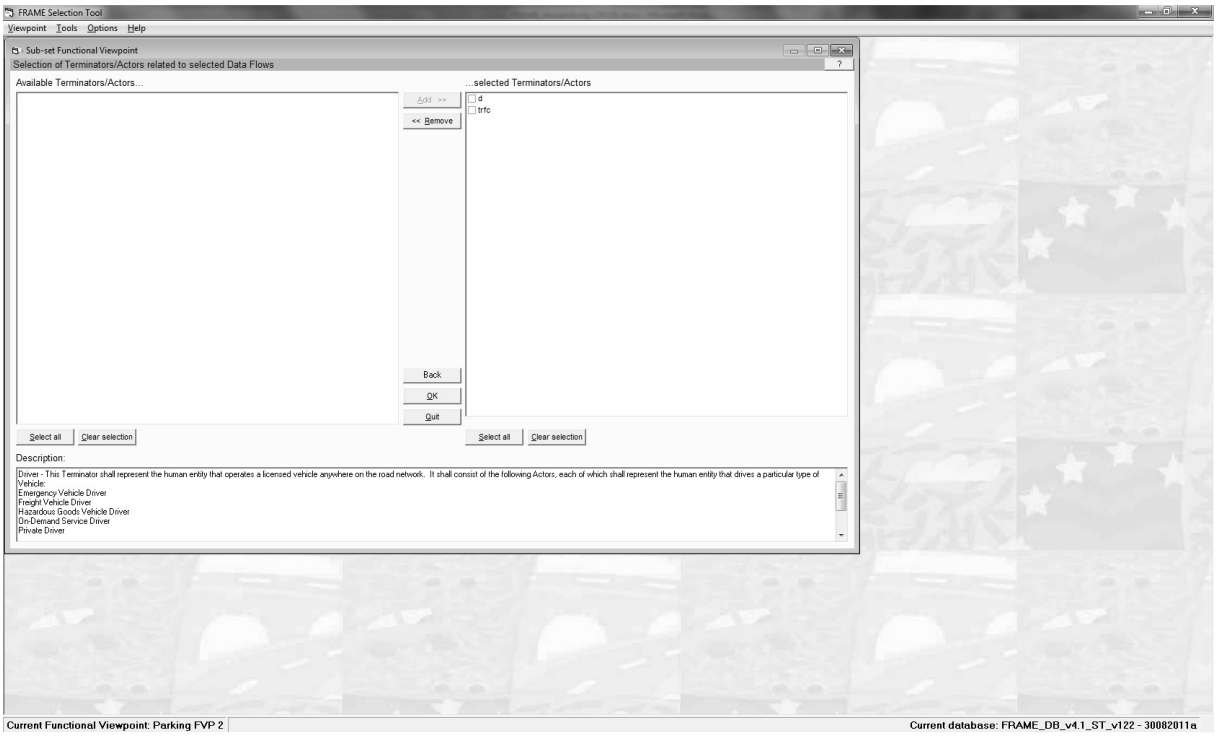

Bild 6: Selection of Terminators/Actors related to selected Data Flows

Schritt 7: Current consistency errors and warnings

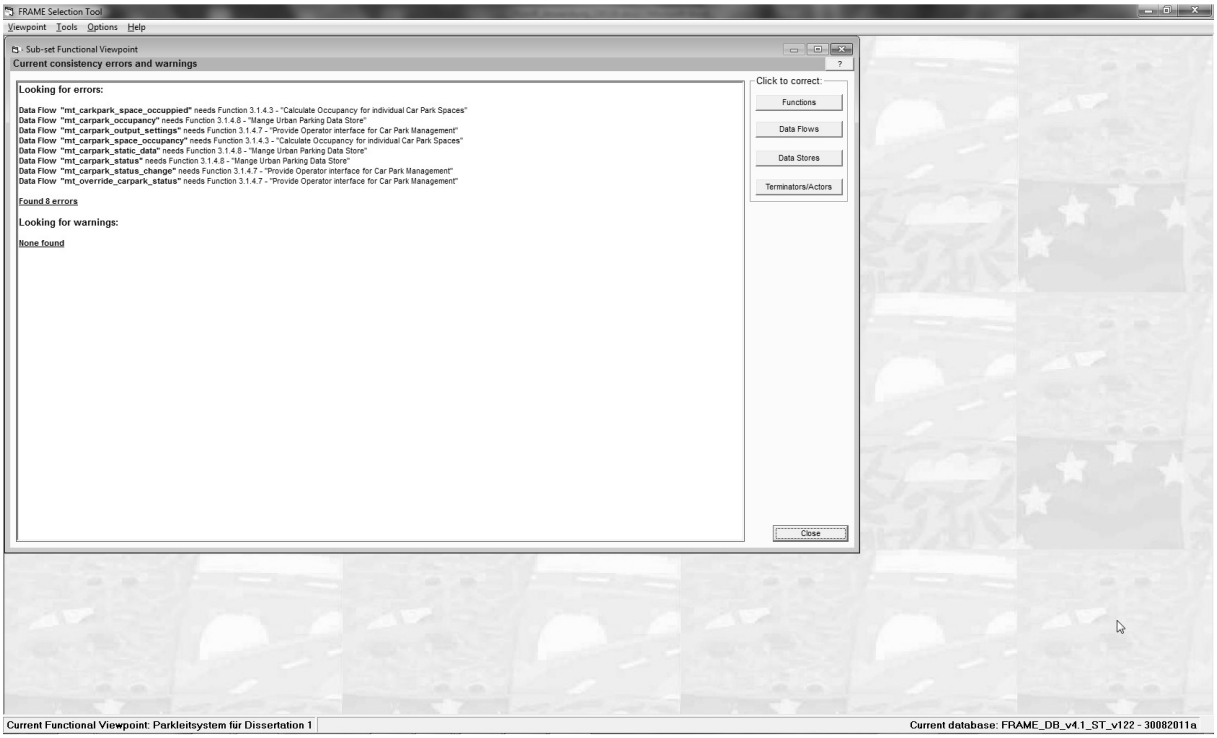

Bild 7: Current consistency errors and warnings

Schritt 8: Selection of low level Functions

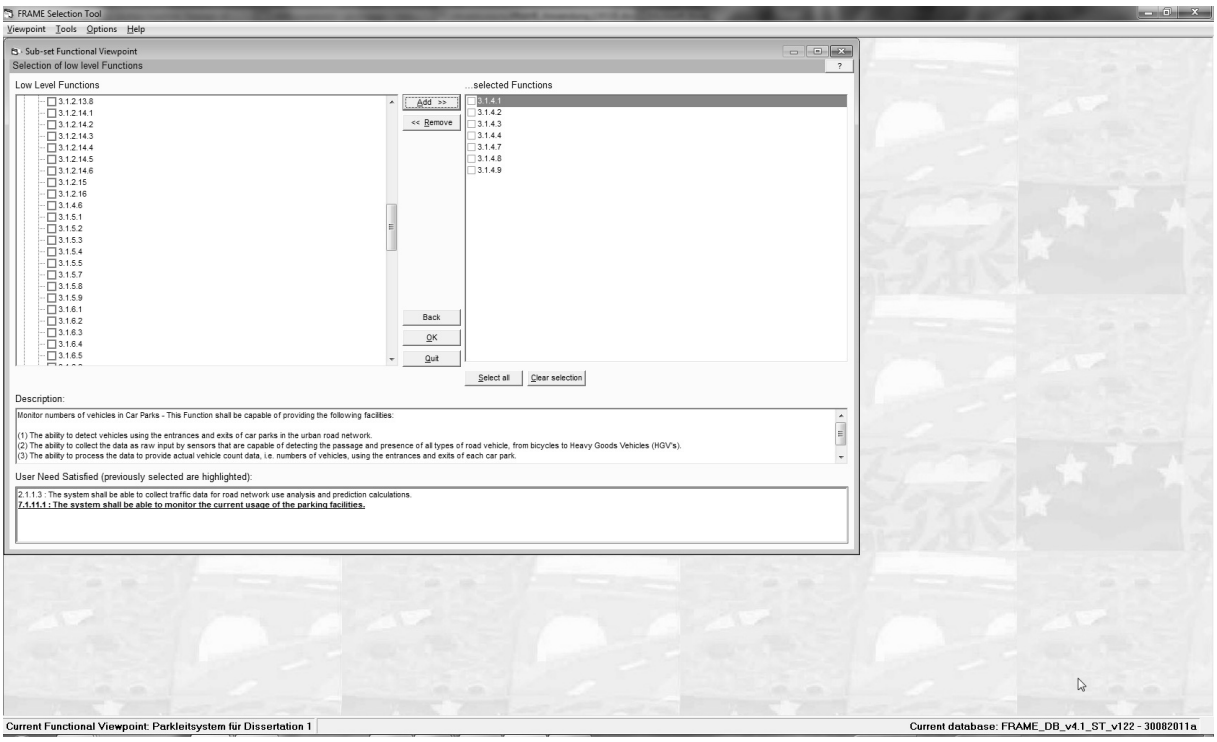

Bild 8: Selection of low level Functions

Schritt 9: Selection of Data Flows related to selected Functions

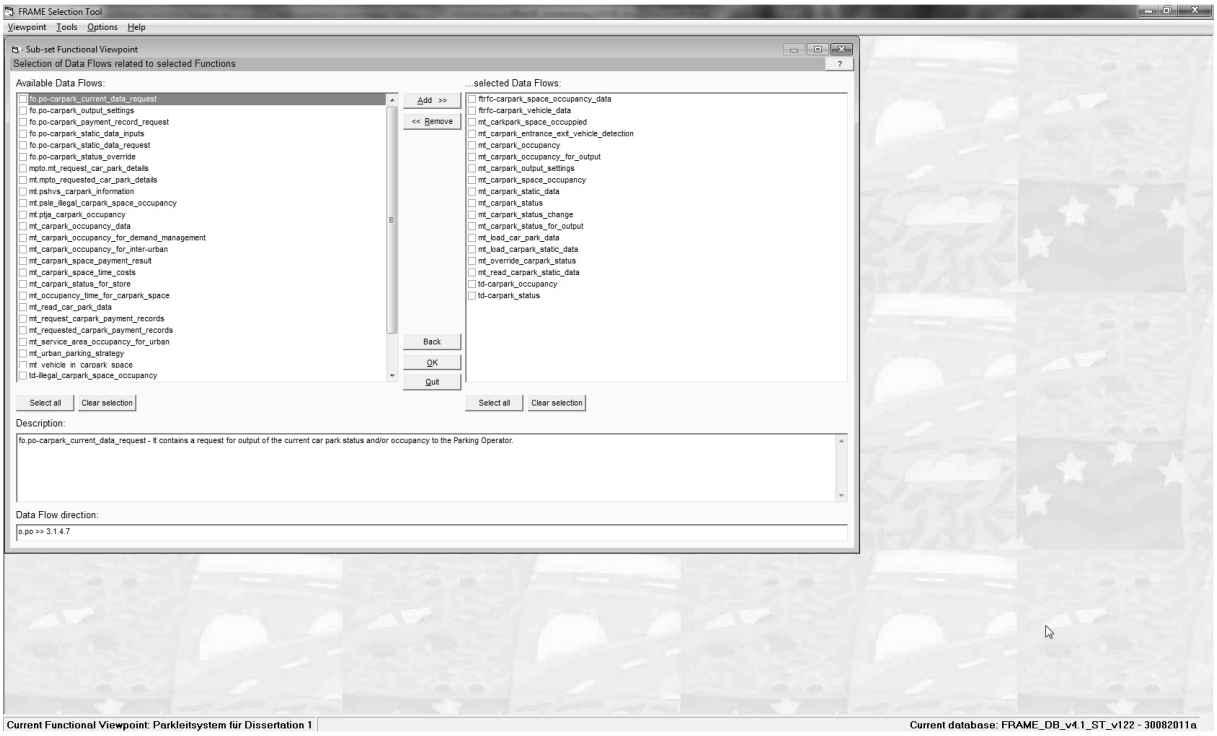

Bild 9: Selection of Data Flows related to Selected Functions

Schritt 10: Selection of Data Stores related to selected Data Flows

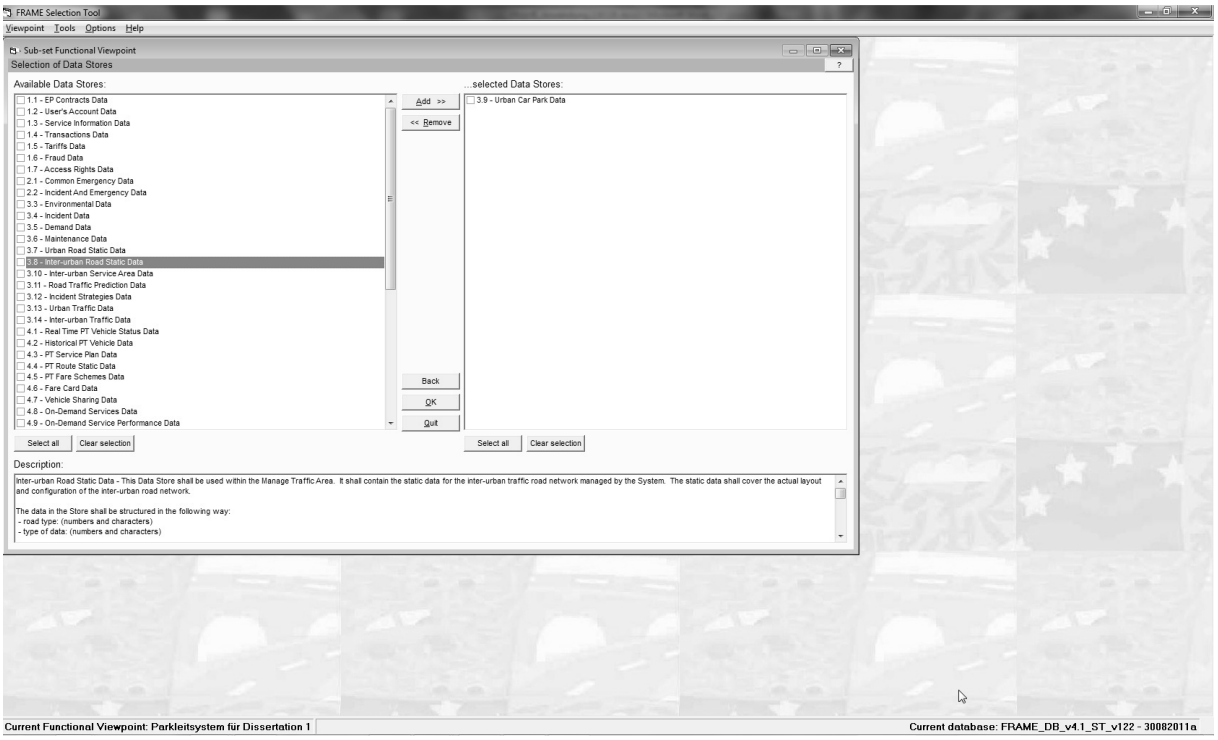

Bild 10: Selection of Data Stores related to selected Data Flows

Schritt 11: Selection of Data Flows related to selected Data Stores

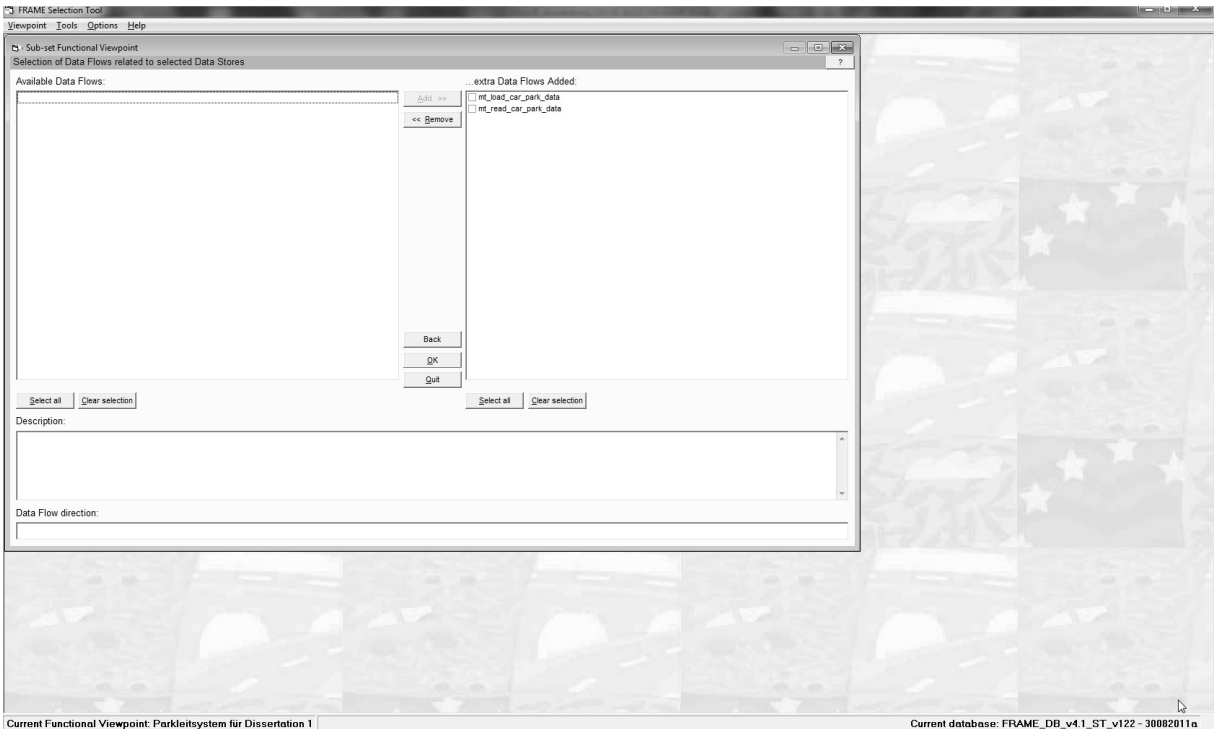

Bild 11: Selection of Data Flows related to selected Data Stores

Schritt 12: Selection of Terminators/Actors related to selected Data Flows

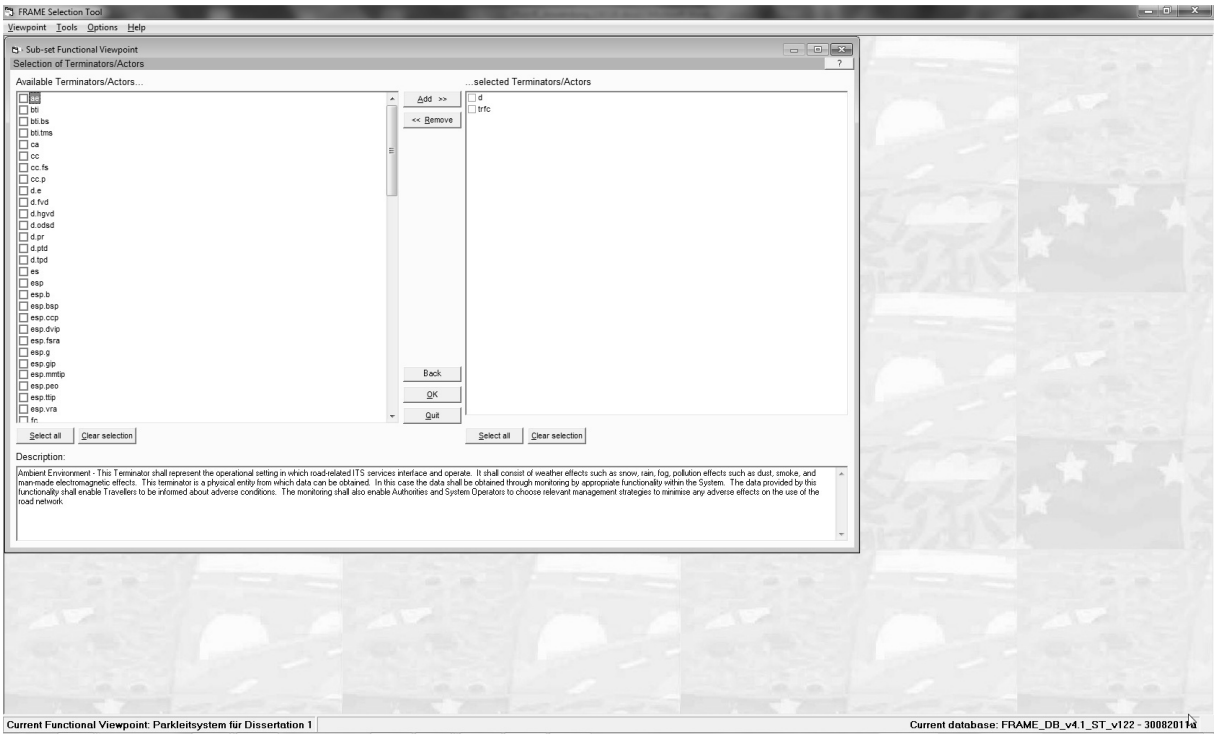

Bild 12: Selection of Terminators/Actors related to selected Data Flows

Schritt 13: Current consistency errors and warnings

Bild 13: Current consistency errors and warnings

A2.1.2. Physical Viewpoint

Schritt 1: Definition of Sub-Systems

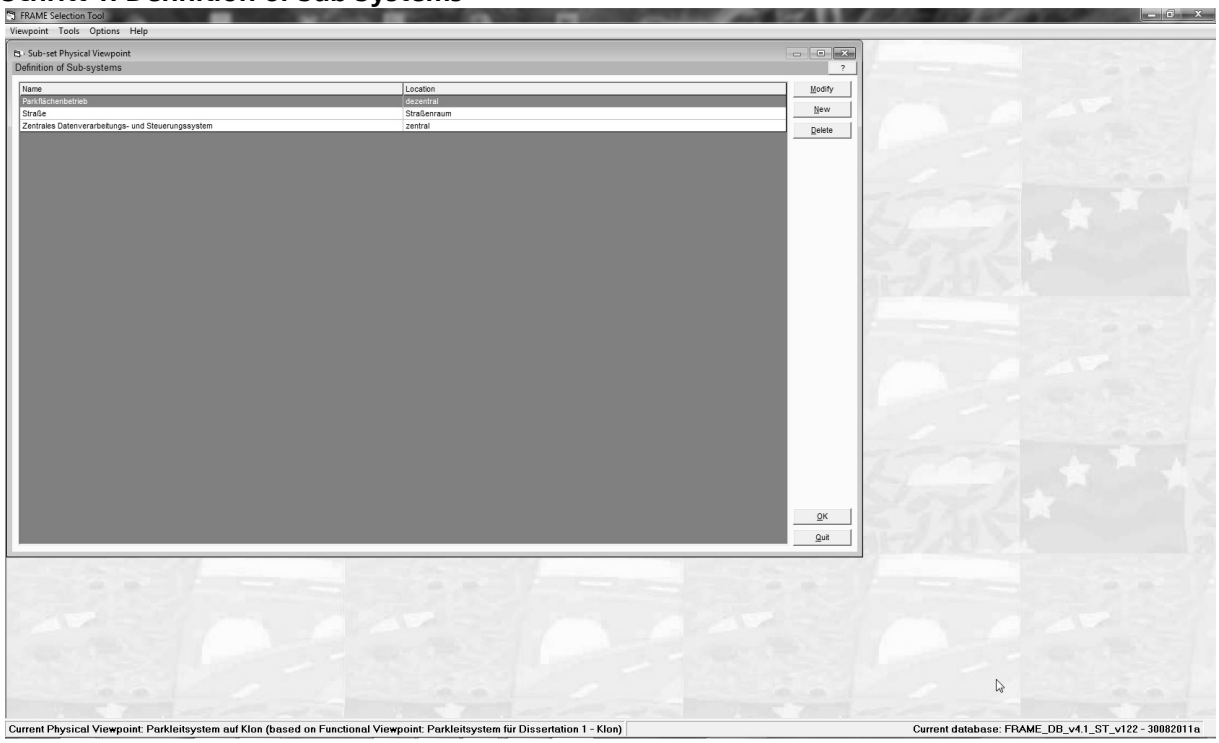

Bild 14: Definition of Sub-Systems

Schritt 2: Allocation of Functions/Data Stores to Sub-Systems

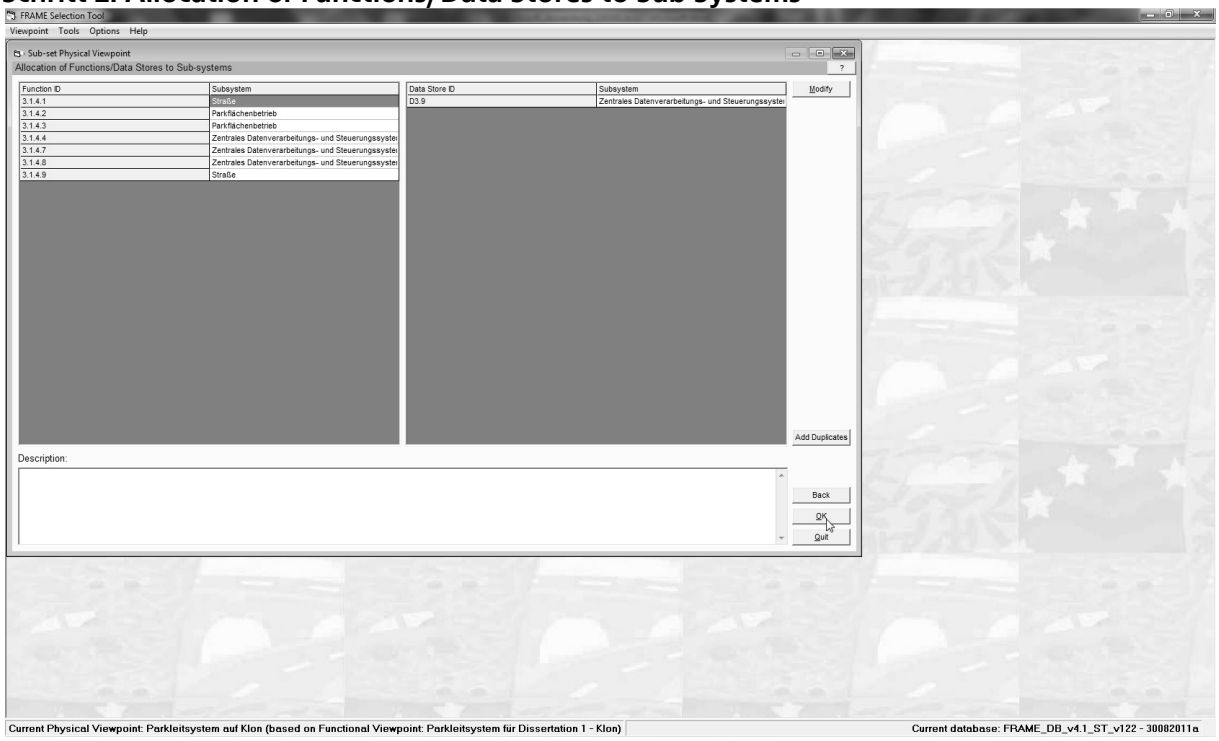

Bild 15: Allocation of Functions/Data Stores to Sub-Systems

Schritt 3: Definition of Modules

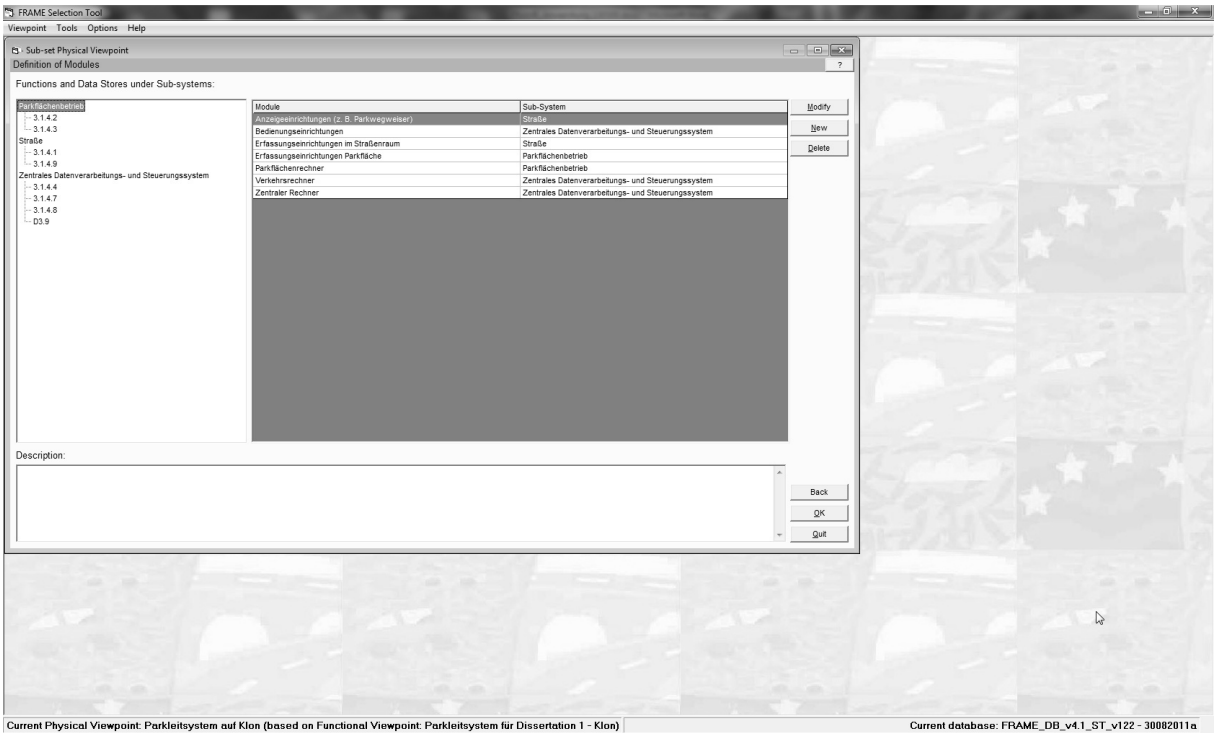

Bild 16: Definition of Modules

Schritt 4: Allocation of Functions/Data Stores to Modules

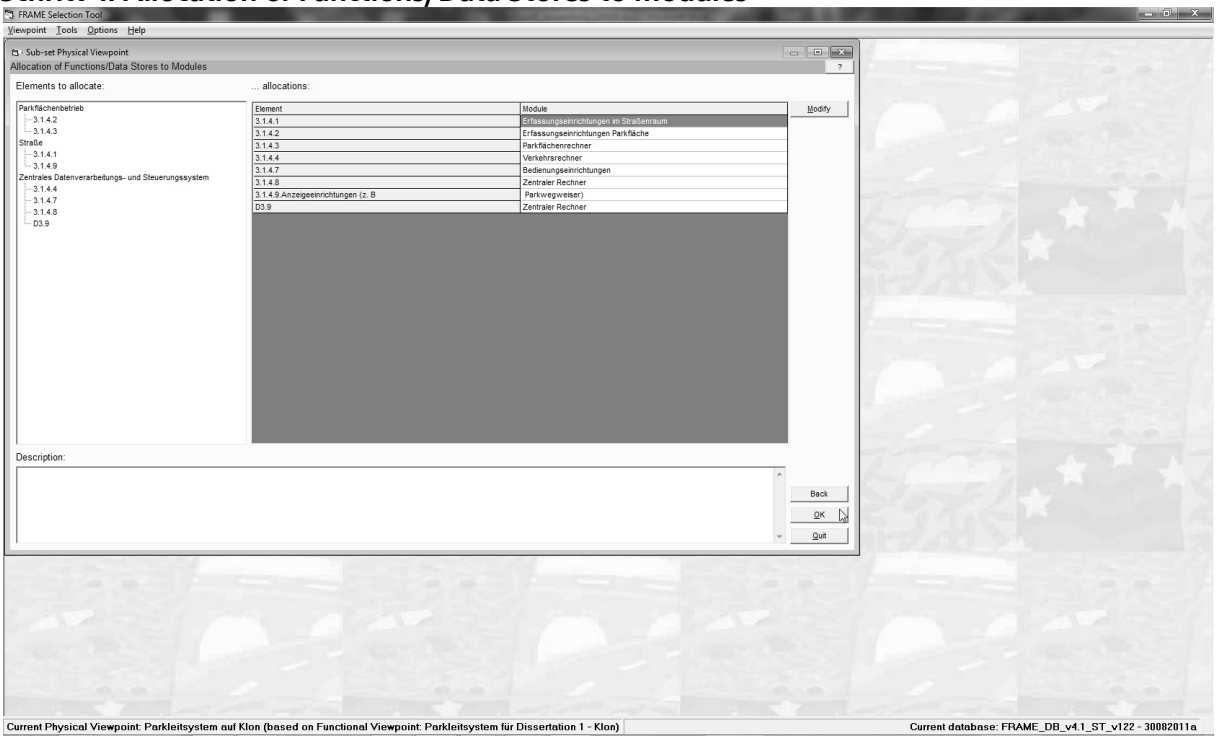

Bild 17: Allocation of Functions/Data Stores to Modules

Schritt 5: Resulting Physical Data Flows

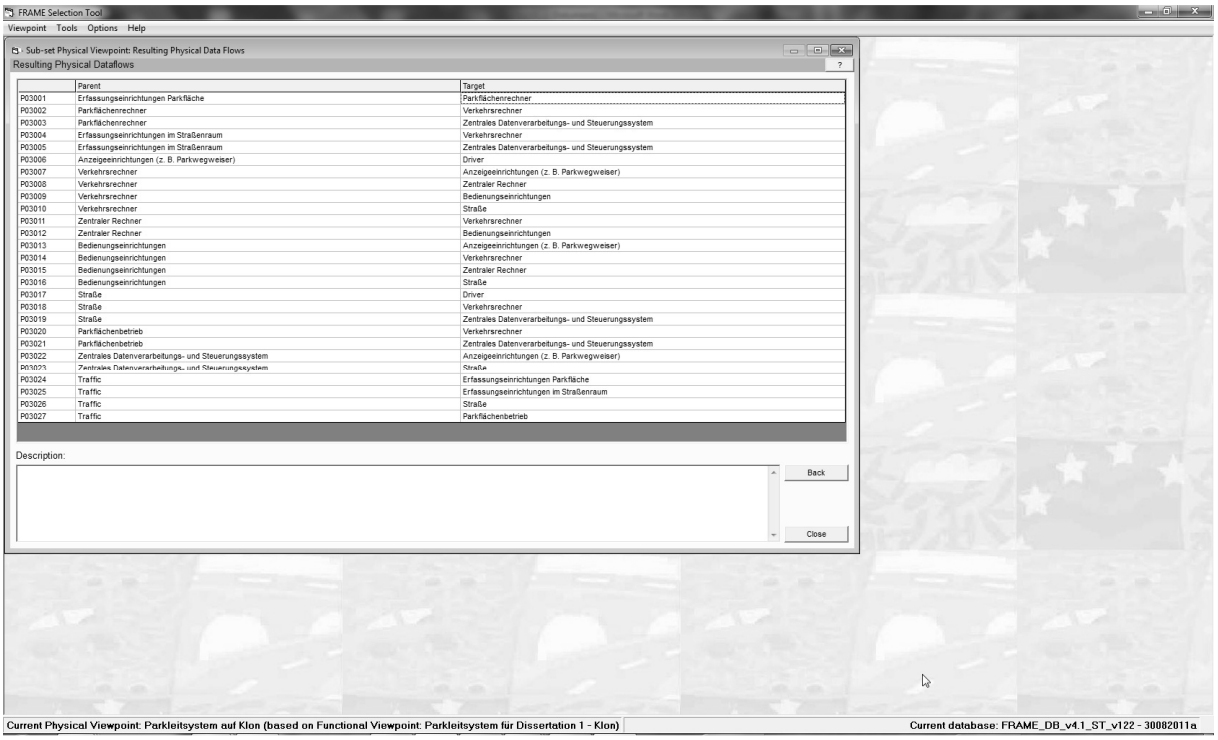

Bild 18: Resulting Physical Data Flows

A2.1.3. Organisational Viewpoint

Schritt 1: Definition of Organisations

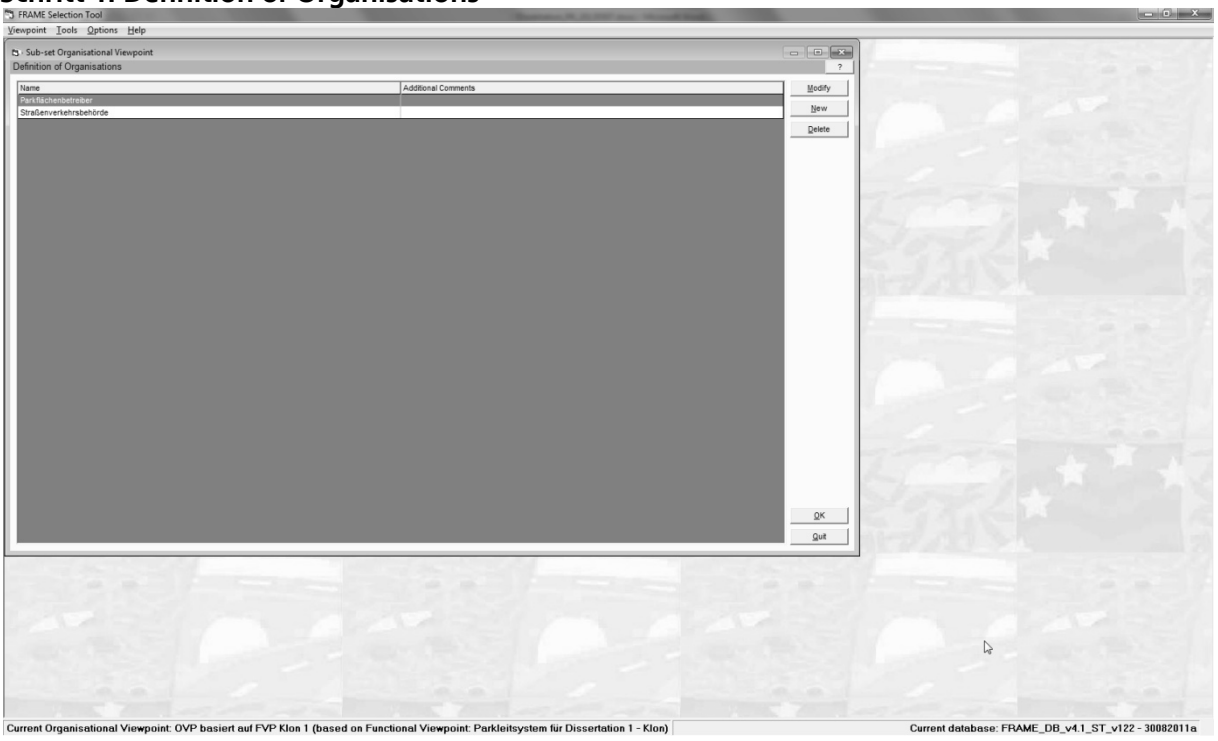

Bild 19: Definition of Organisations

Schritt 2: Allocation of Functions/Data Stores to Organisations

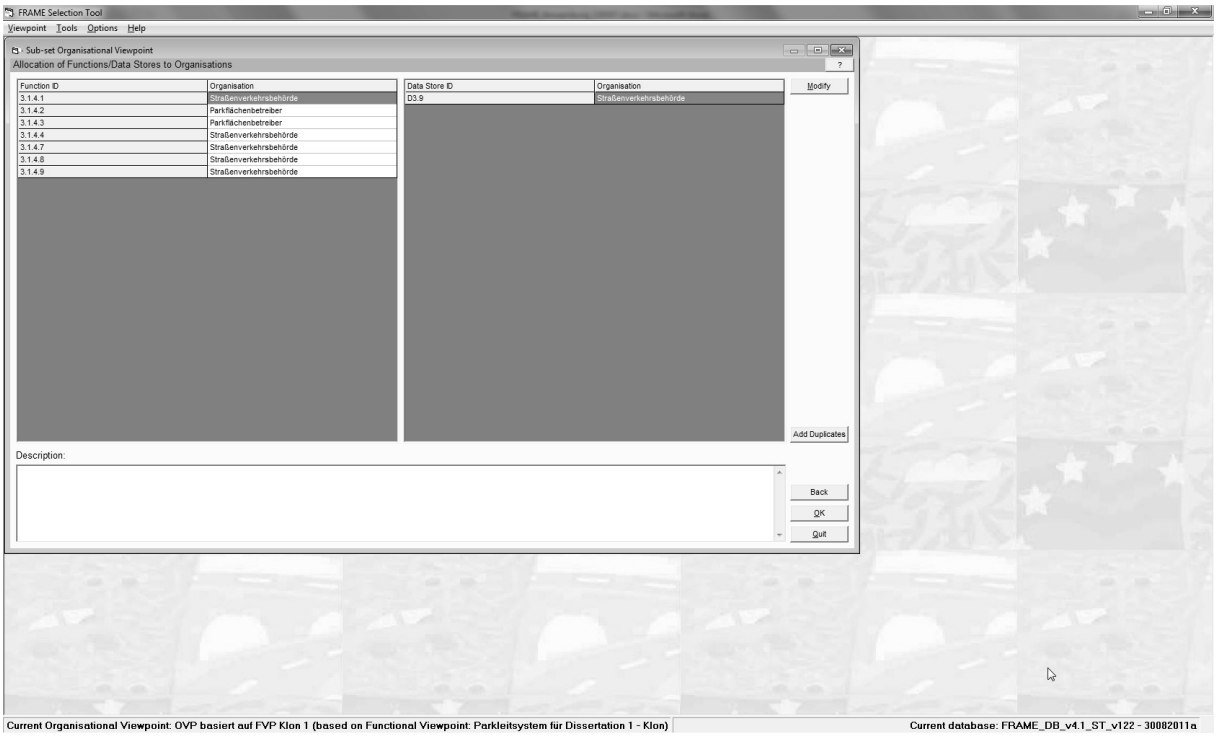

Bild 20: Allocation of Functions/Data Stores to Organisations

Schritt 3: Resulting Organisational Data Flows

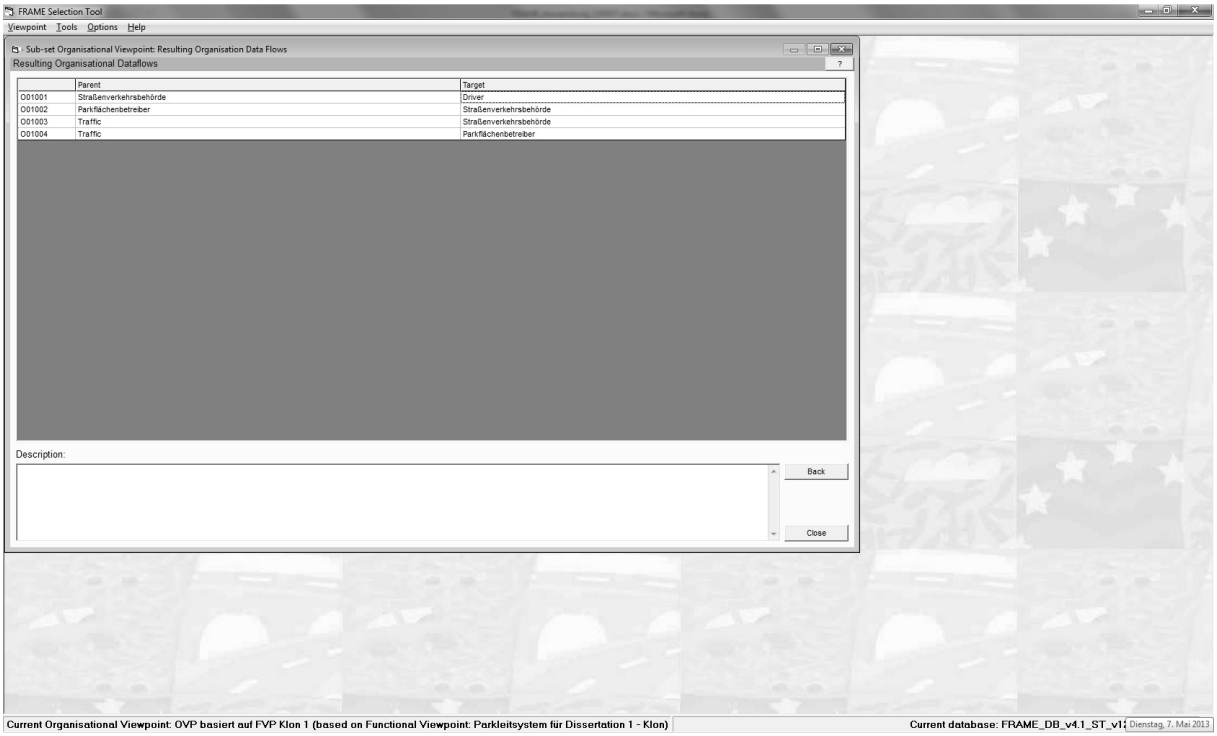

Bild 21: Resulting Organisational Data Flows

A2.2. NITSA

Die nachfolgend dargestellten Screenshots sind in dem Programm Turbo Architecture (ITERIS 2012) gemacht worden und dokumentieren das Vorgehen im Anwendungsbeispiel.

Start Tab

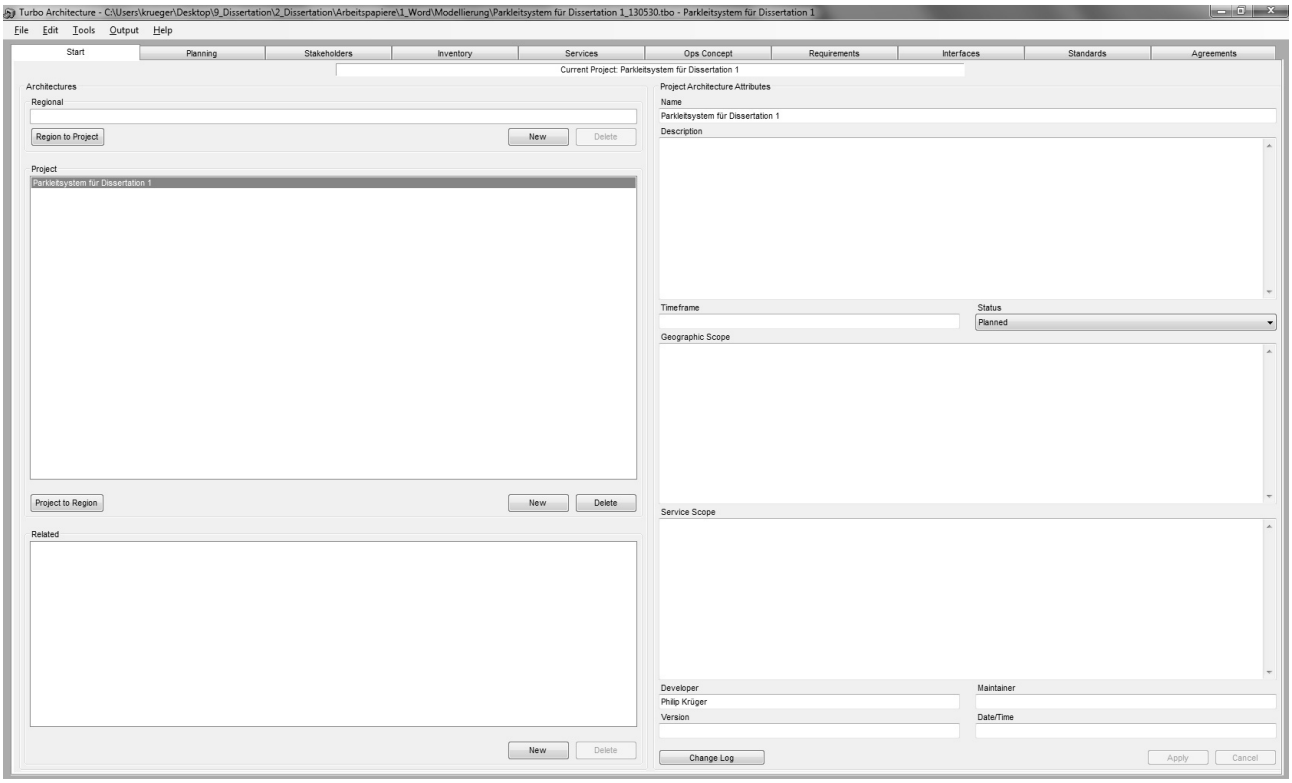

Bild 22: Start Tab

Planning Tab

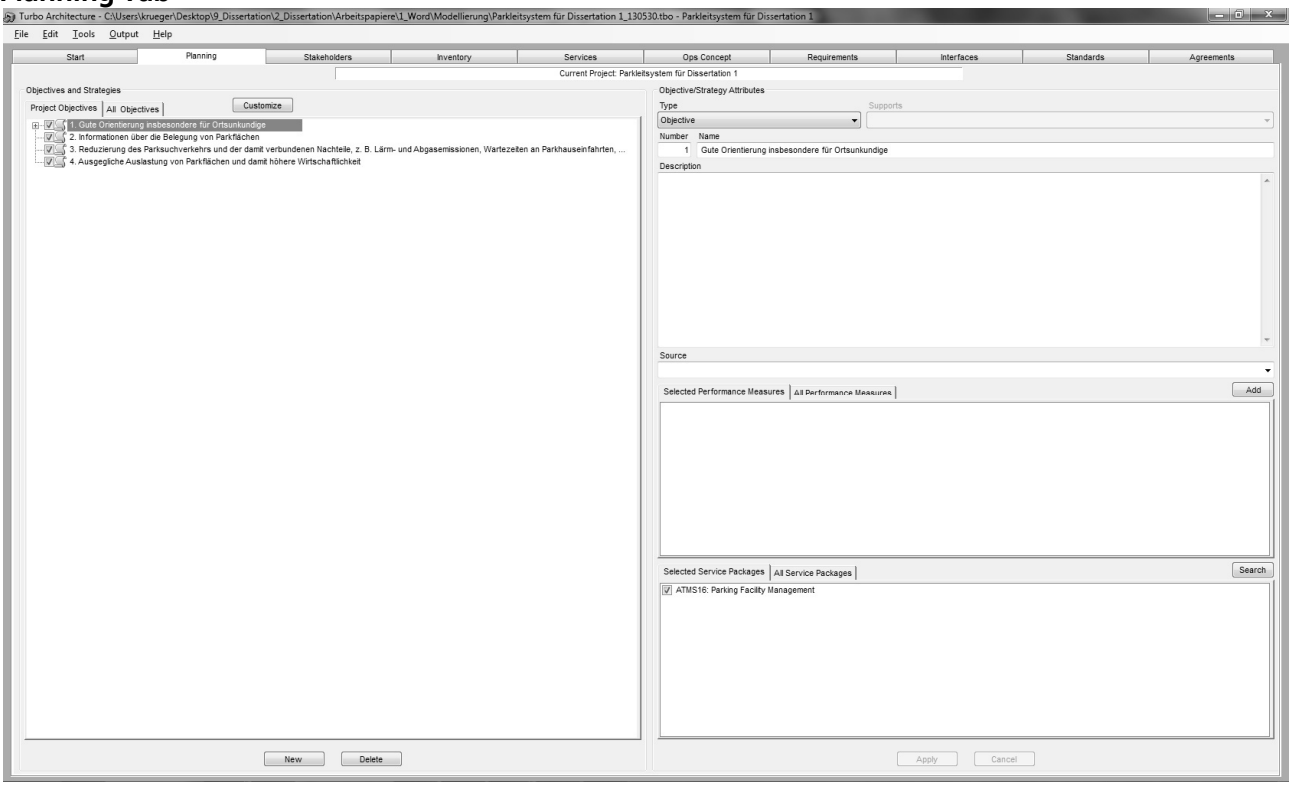

Bild 23: Planning Tab

Stakeholders Tab

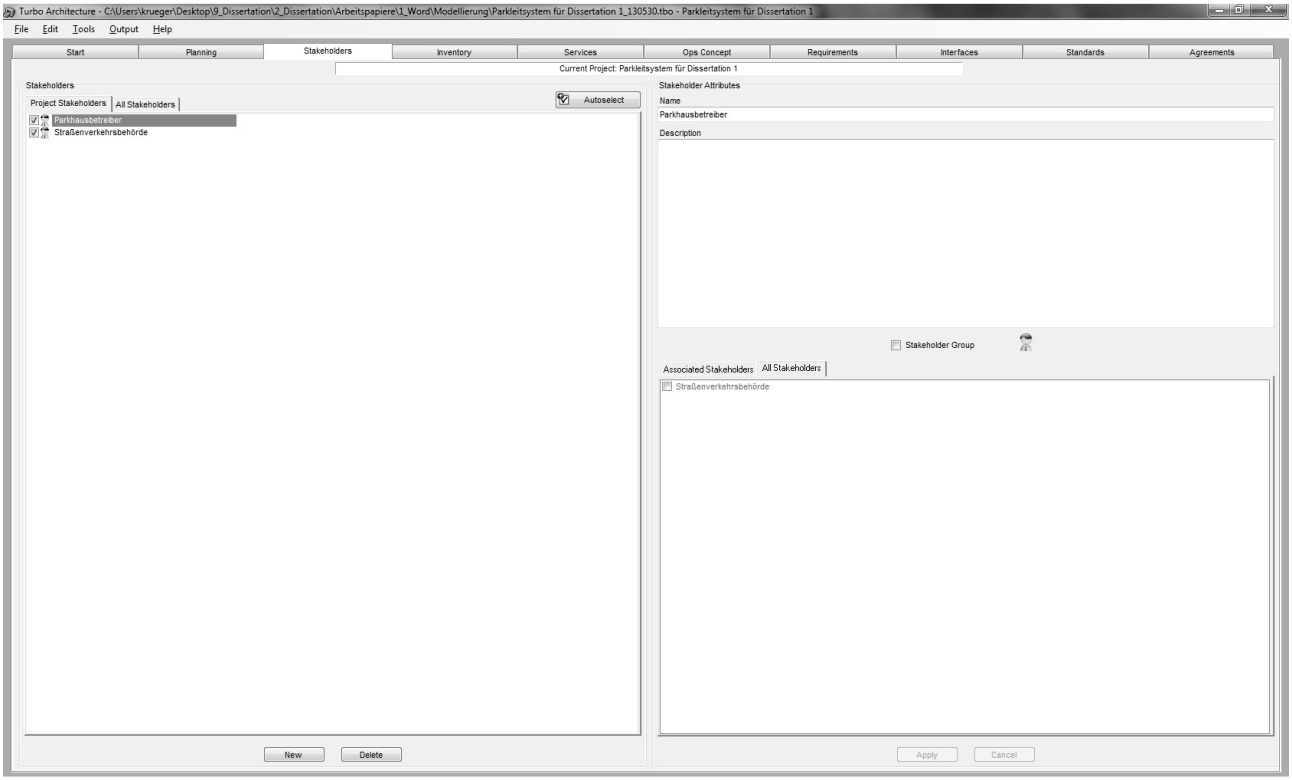

Bild 24: Stakeholders Tab

Inventory Tab

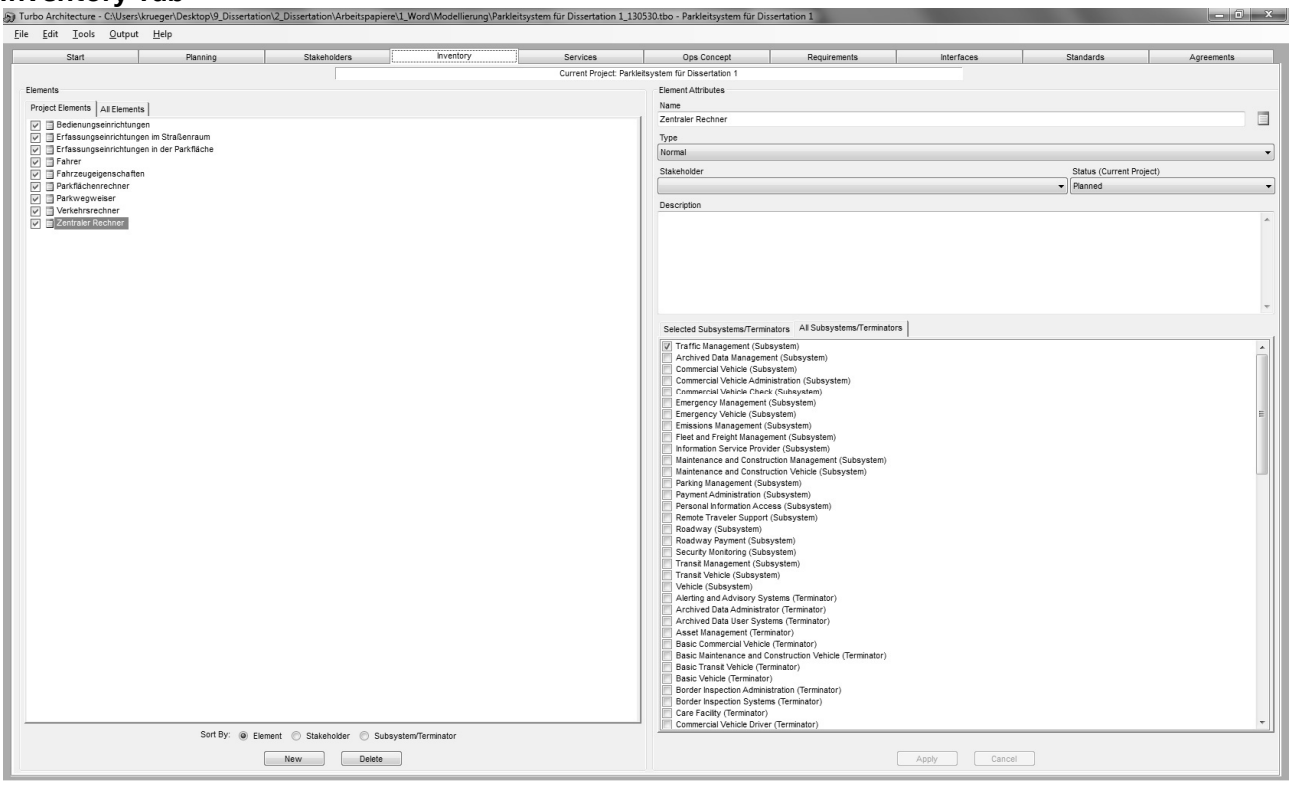

Bild 25: Inventory Tab

Services Tab

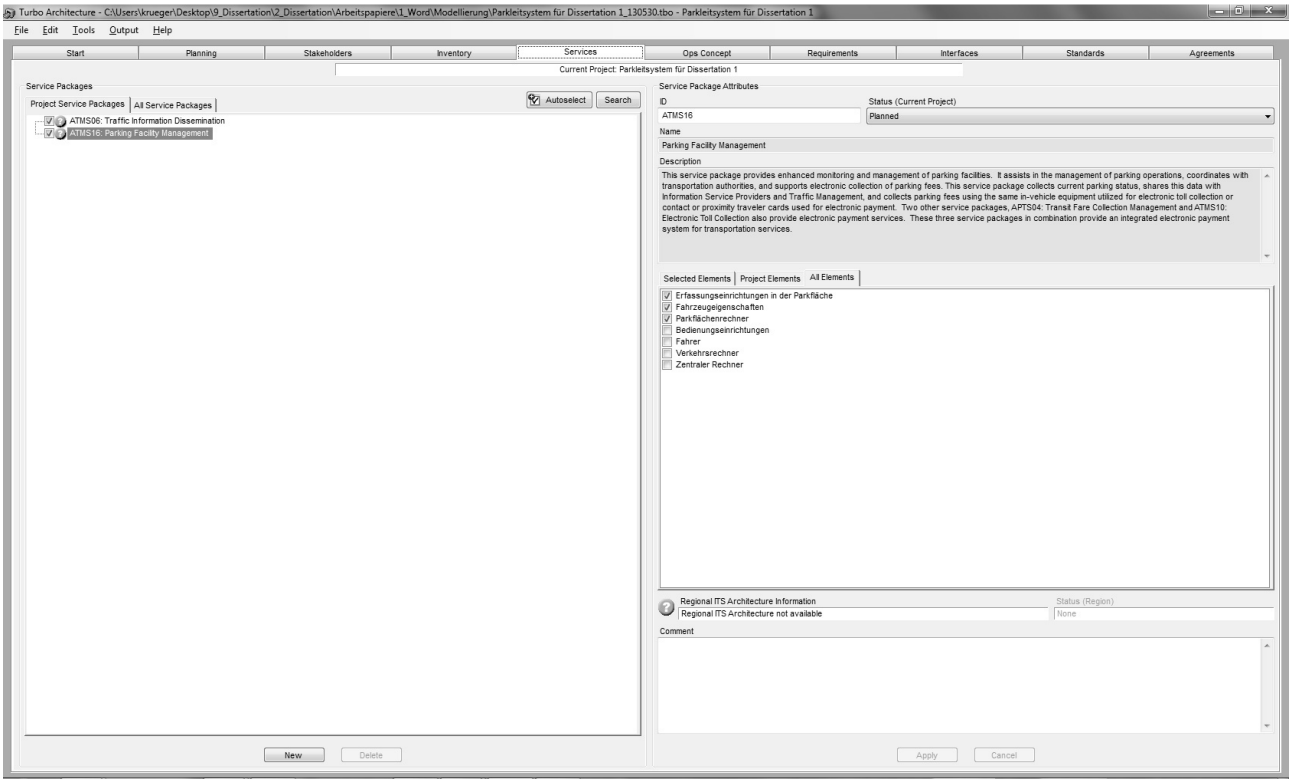

Bild 26: Services Tab

Ops Concept Tab

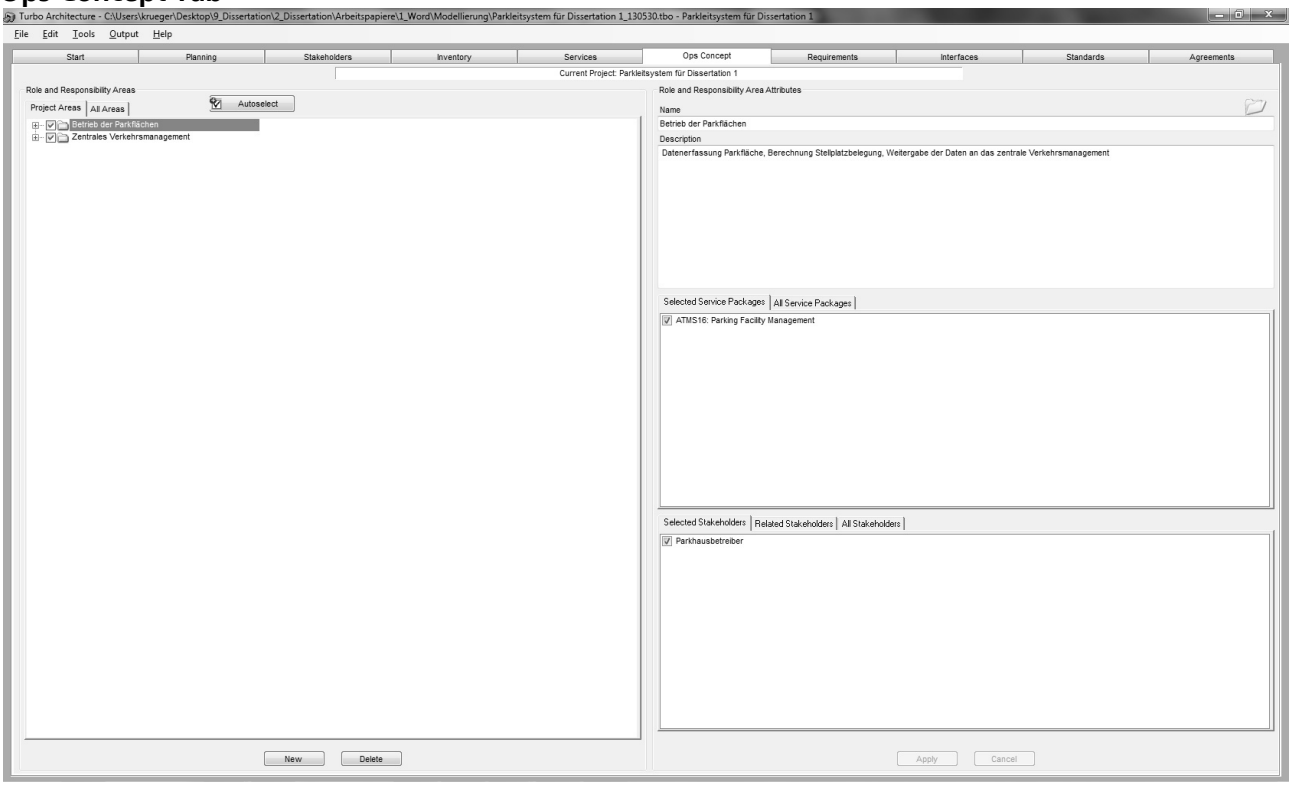

Bild 27: Ops Concept Tab

Requirements Tab

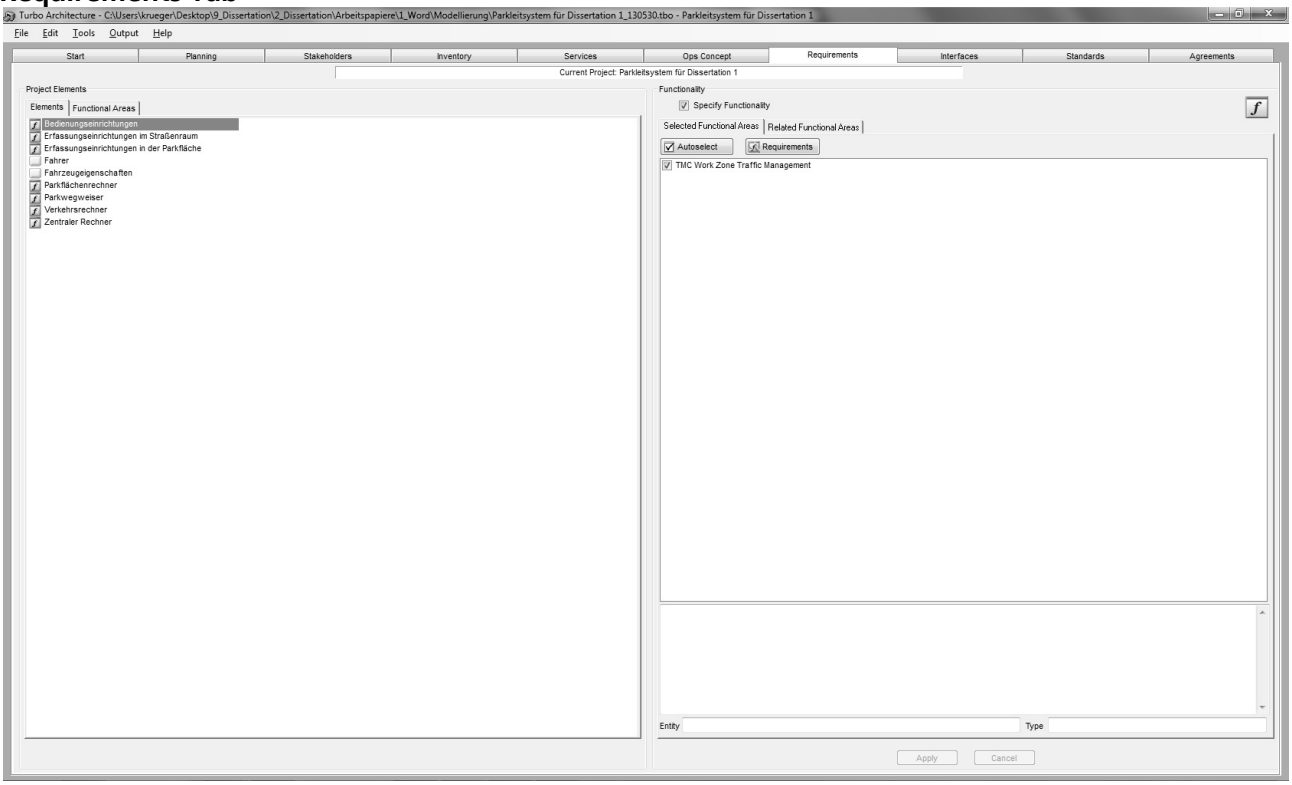

Bild 28: Requirements Tab

Interfaces Tab

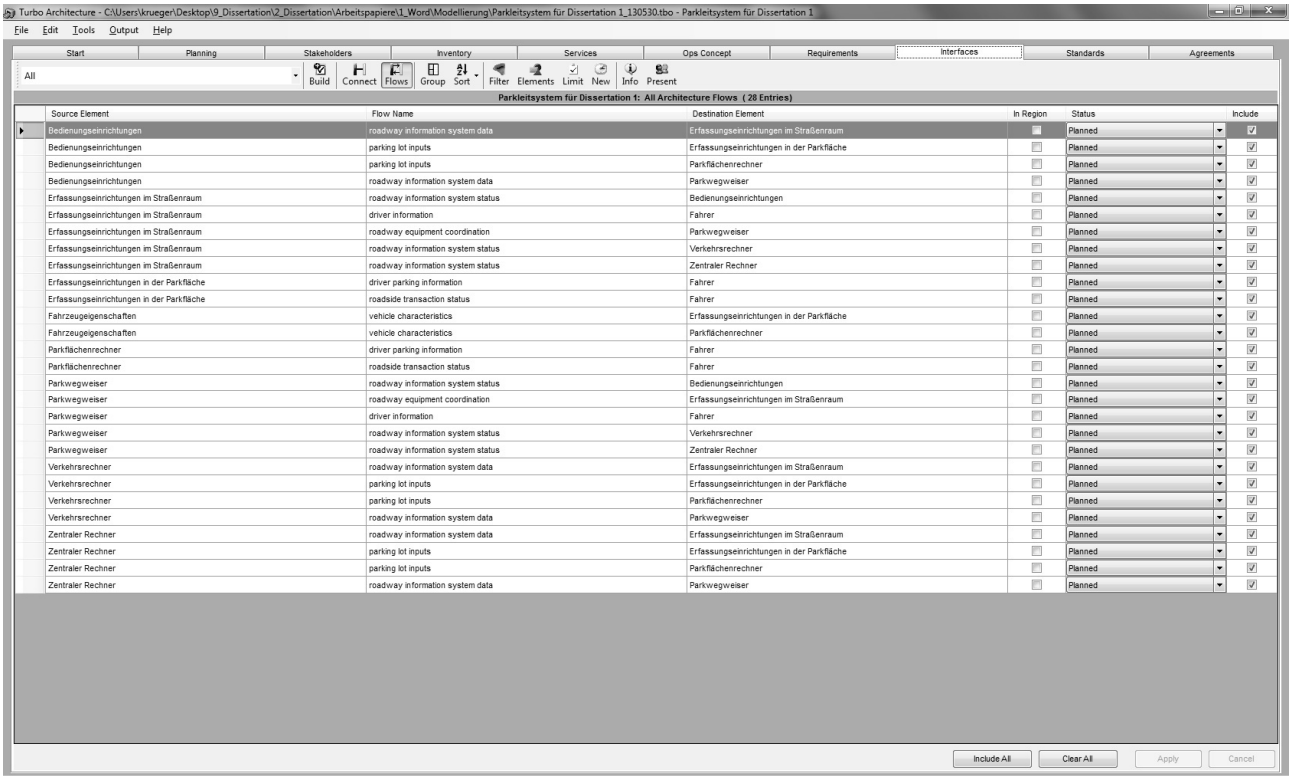

Bild 29: Interfaces Tab

Standards Tab

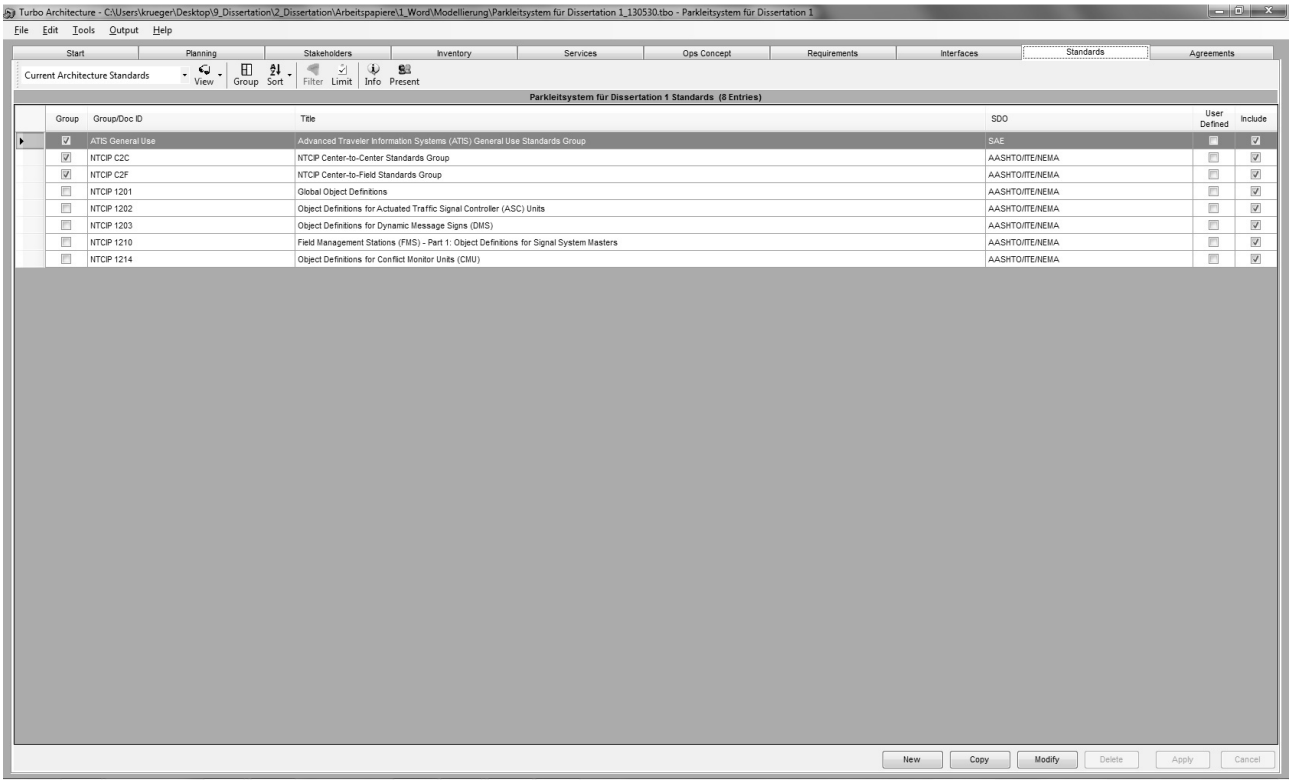

Bild 30: Standards Tab

Agreements Tab

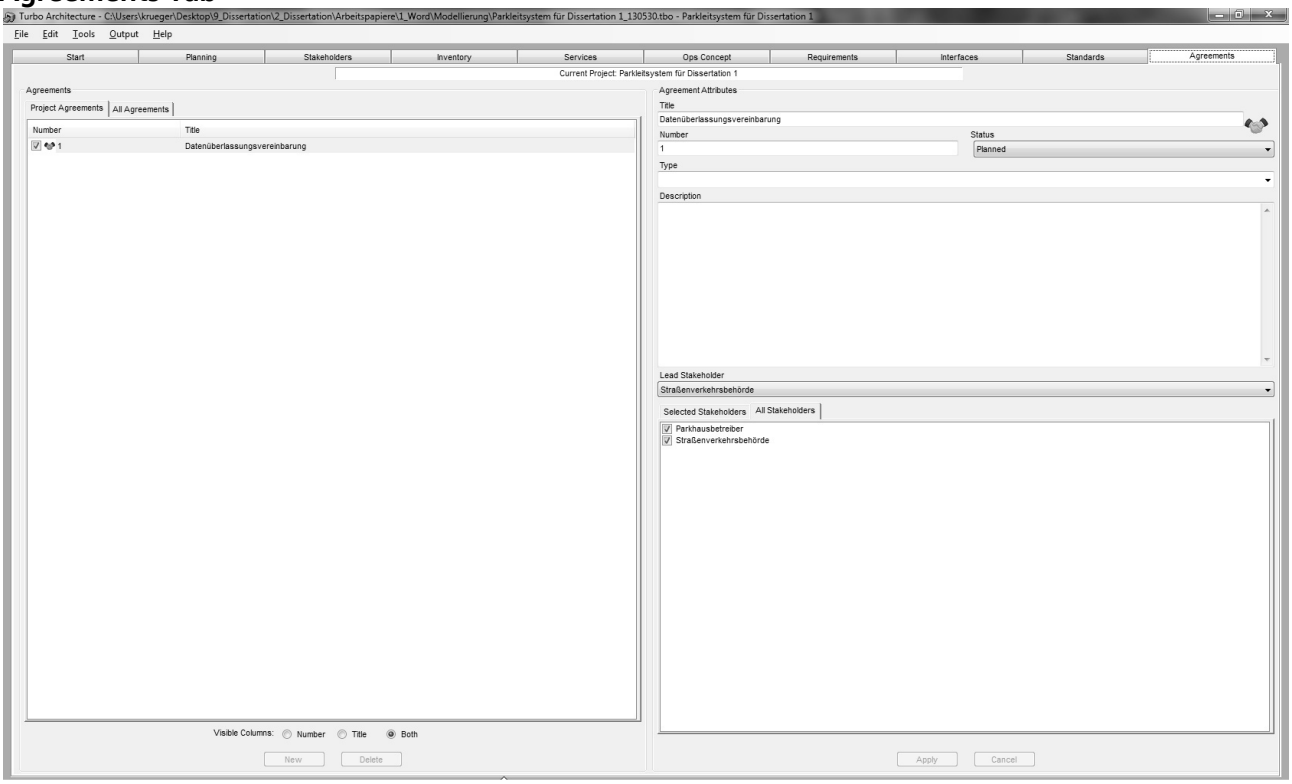

Bild 31: Agreements Tab

A2.3. ARKTRANS

Die nachfolgend dargestellten Screenshots sind in den Programmdateien zu ARKTRANS (SINTEF 2009) gemacht worden und dokumentieren das Vorgehen im Anwendungsbeispiel.

A2.3.1. Functional Viewpoint

Use Case: Transportation Network Infrastructure Management

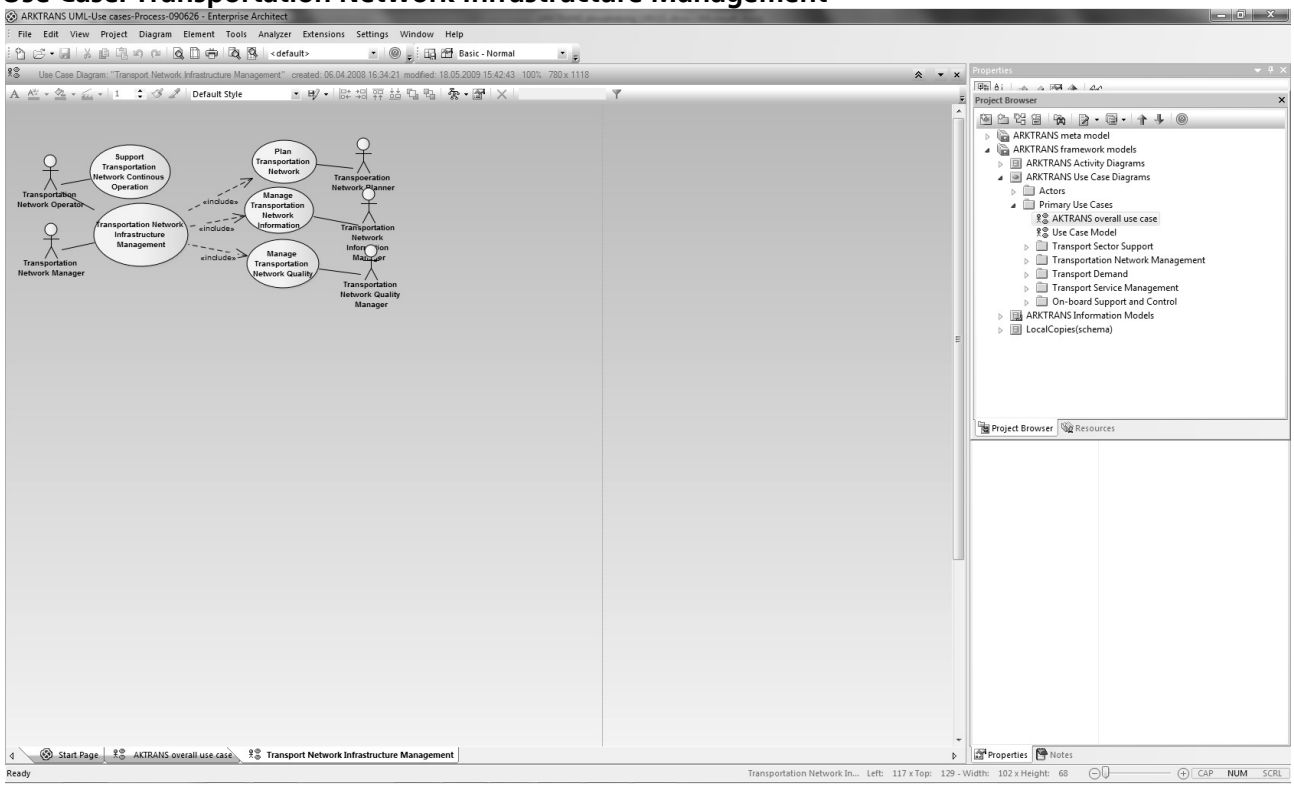

Bild 32: Use Case: Transportation Network Infrastructure Management

Use Case: Transportation Network Utilisation

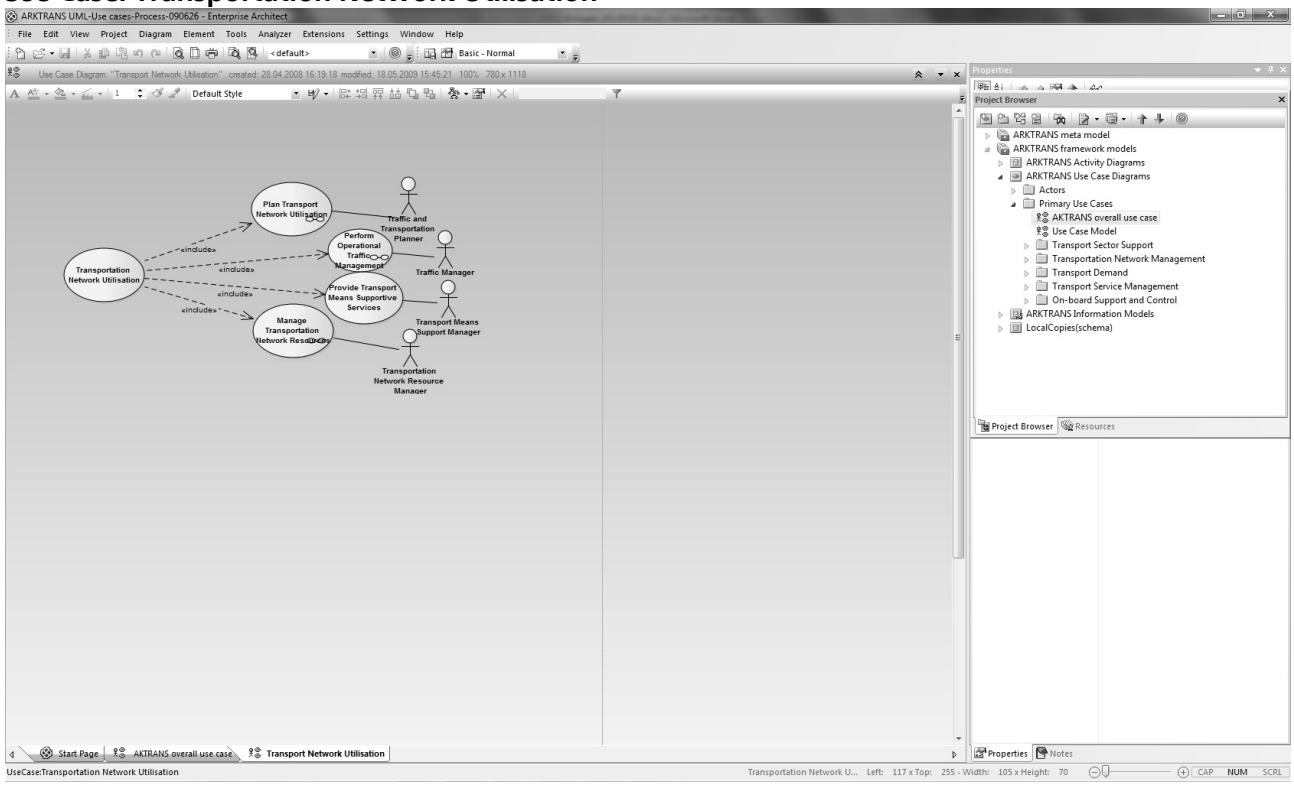

Bild 33: Use Case: Transportation Network Utilisation

Use Case: Transportation Network Resource Management

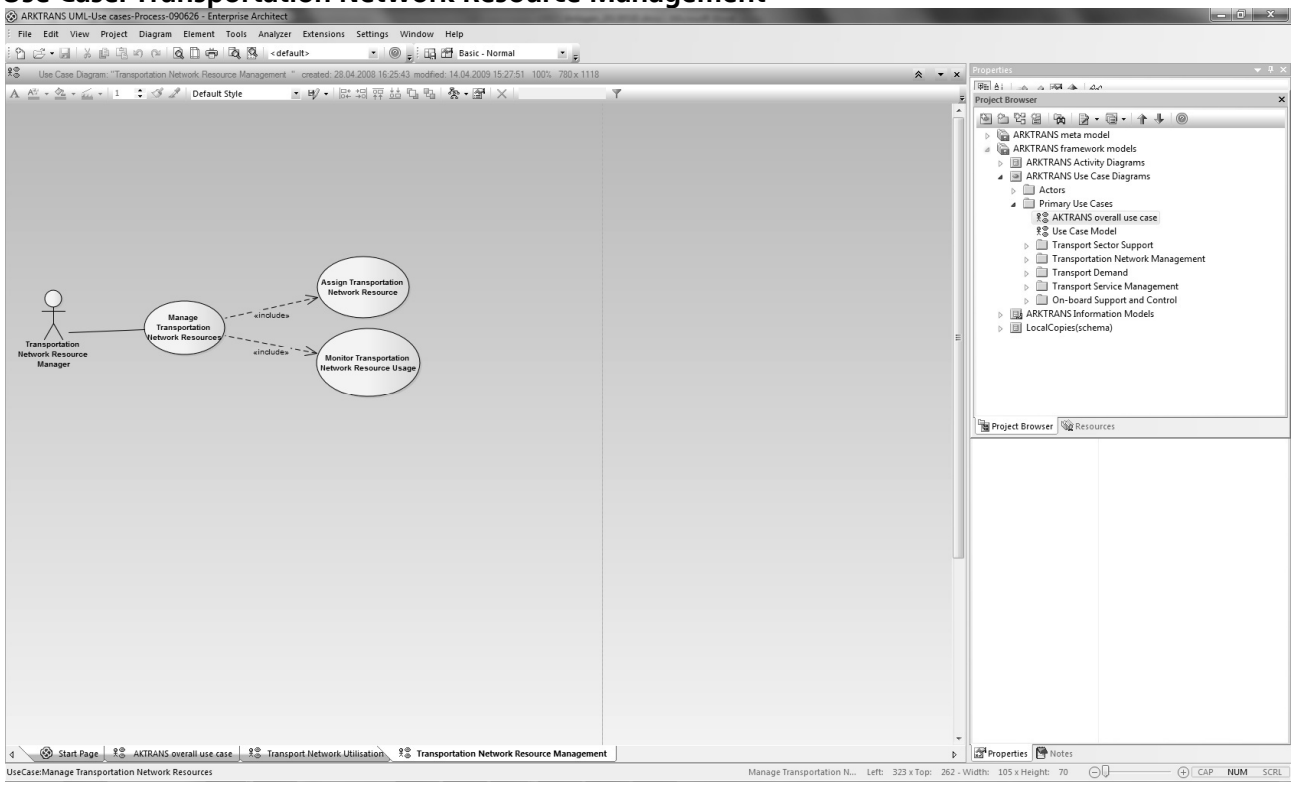

Bild 34: Use Case: Transportation Network Resource Management

Use Case: Perform Operational Traffic Management

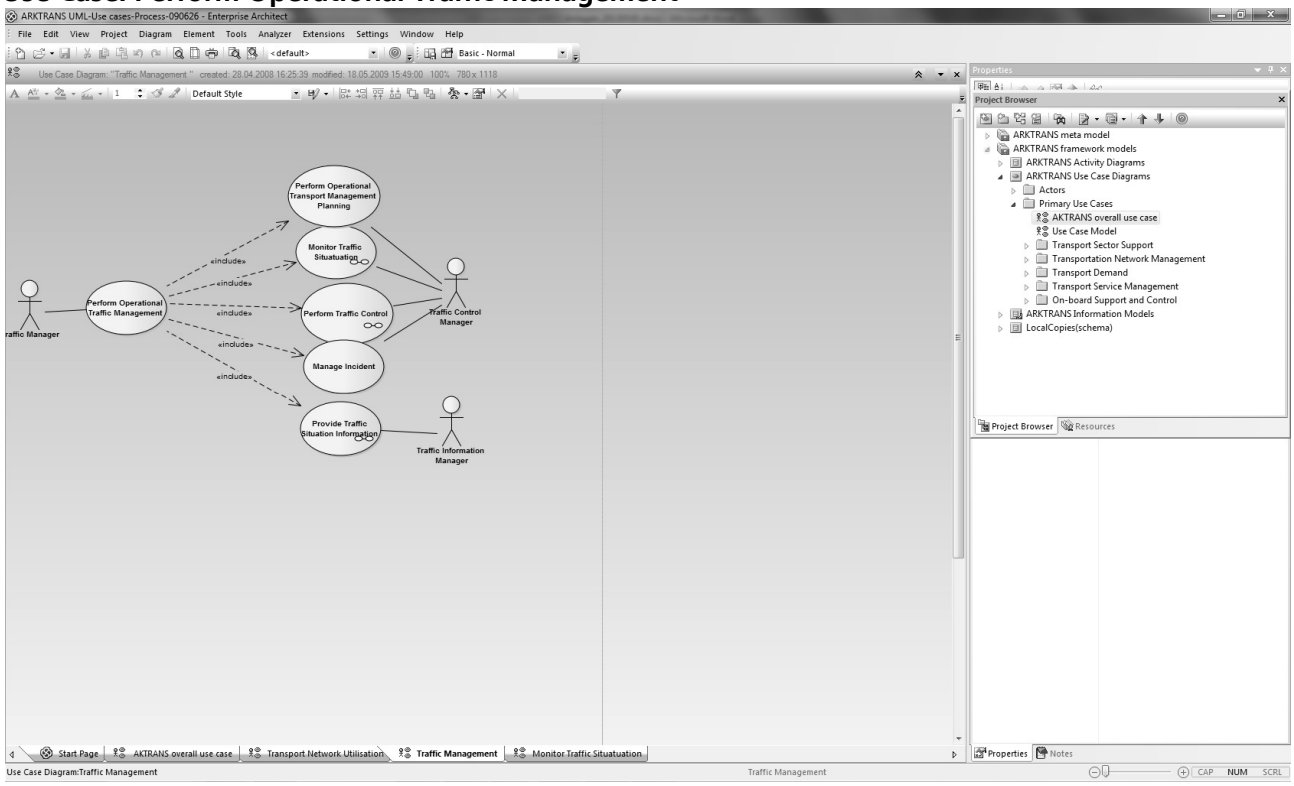

Bild 35: Use Case: Perform Operational Traffic Management

Use Case: Monitor Traffic Situation

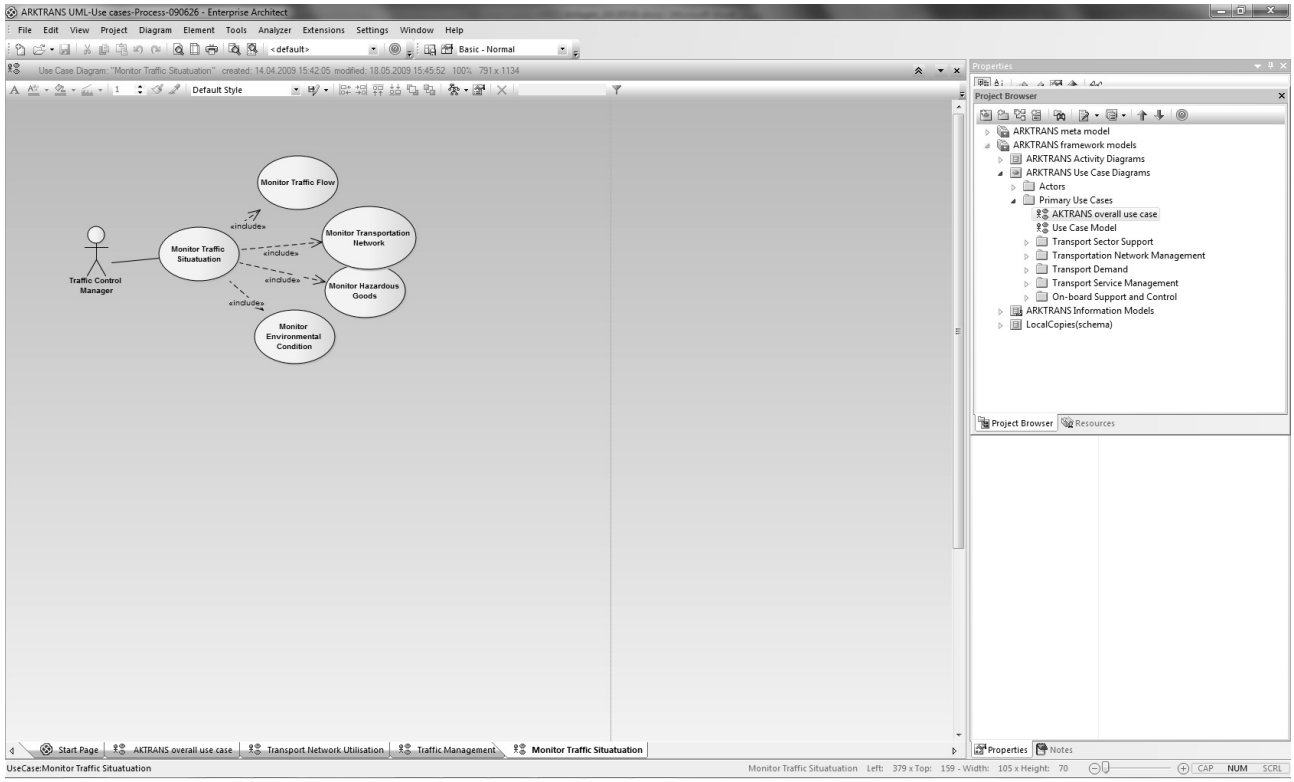

Bild 36: Use Case: Monitor Traffic Situation

Use Case: Provide Traffic Situation Information

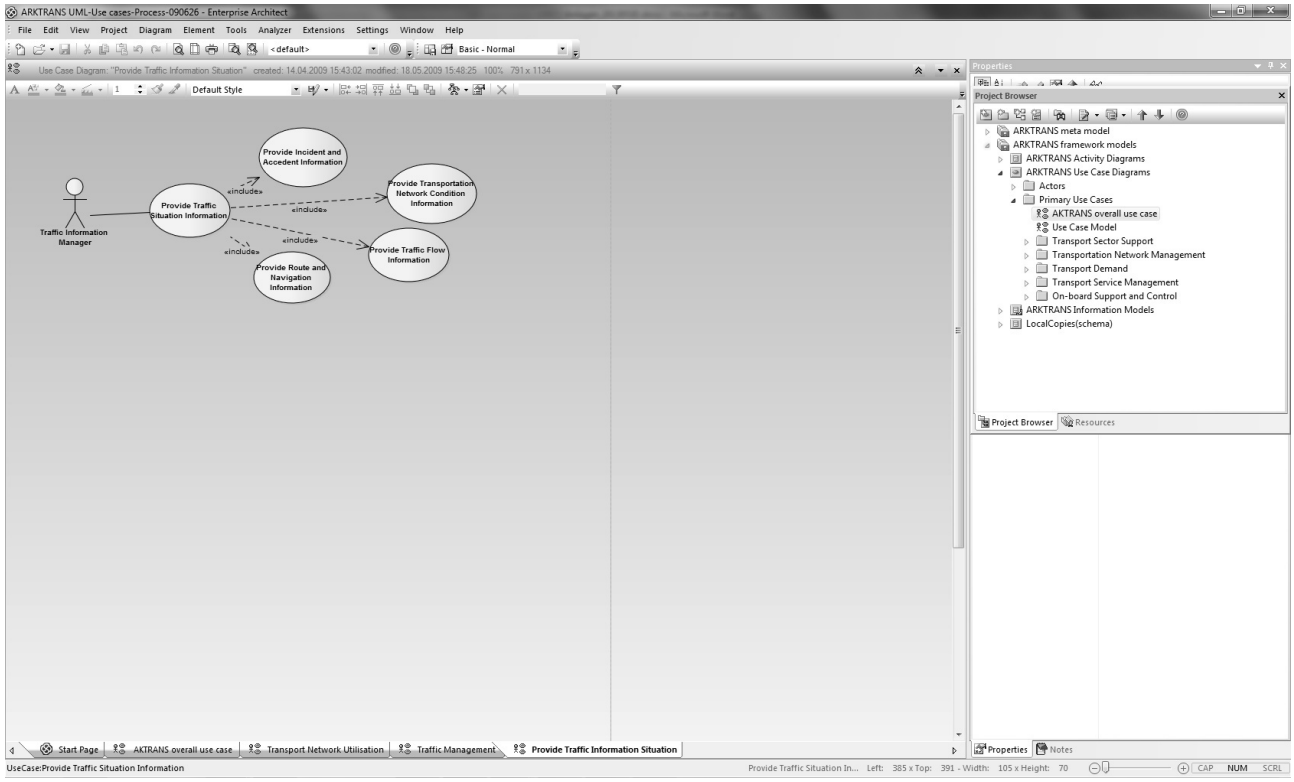

Bild 37: Use Case: Provide Traffic Situation Information

Use Case: Perform Traffic Control

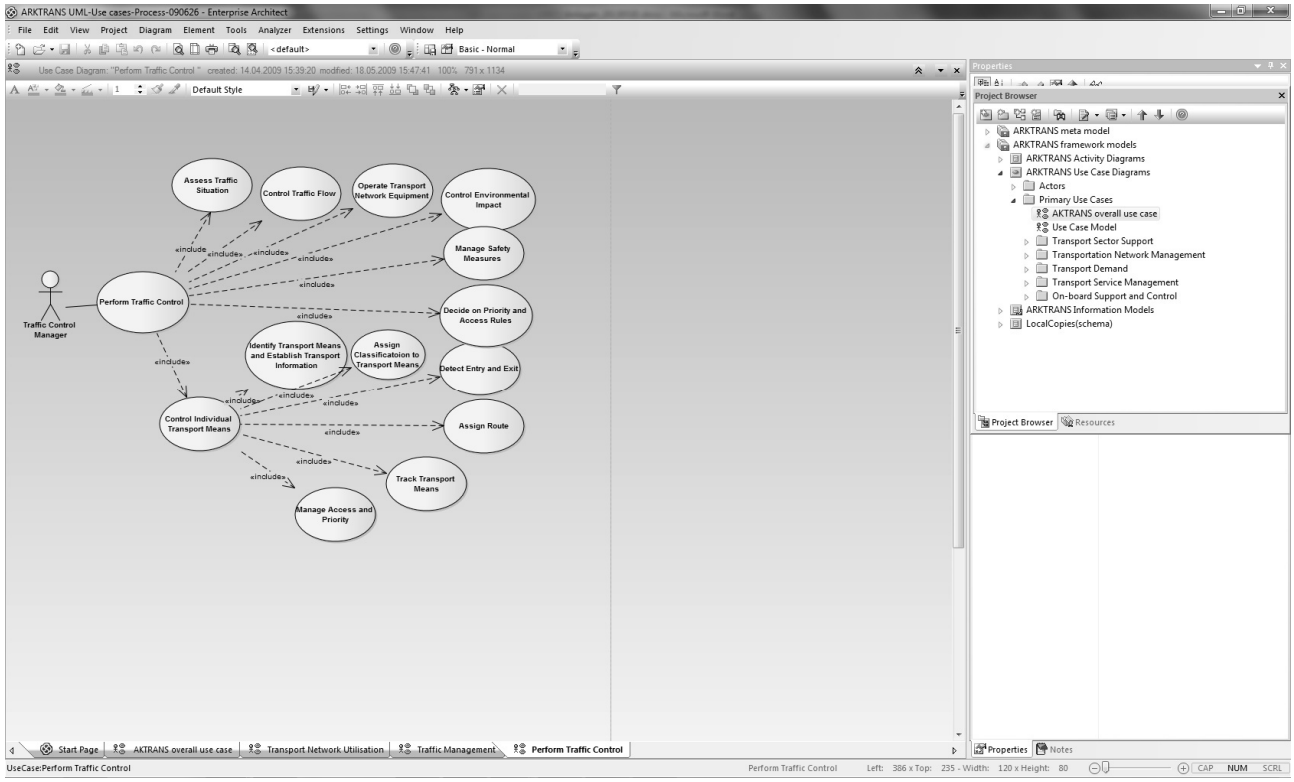

Bild 38: Use Case: Perform Traffic Control

A2.3.2. Process Viewpoint

Aktivitätsdiagramm: Manage Transportation Network Resources

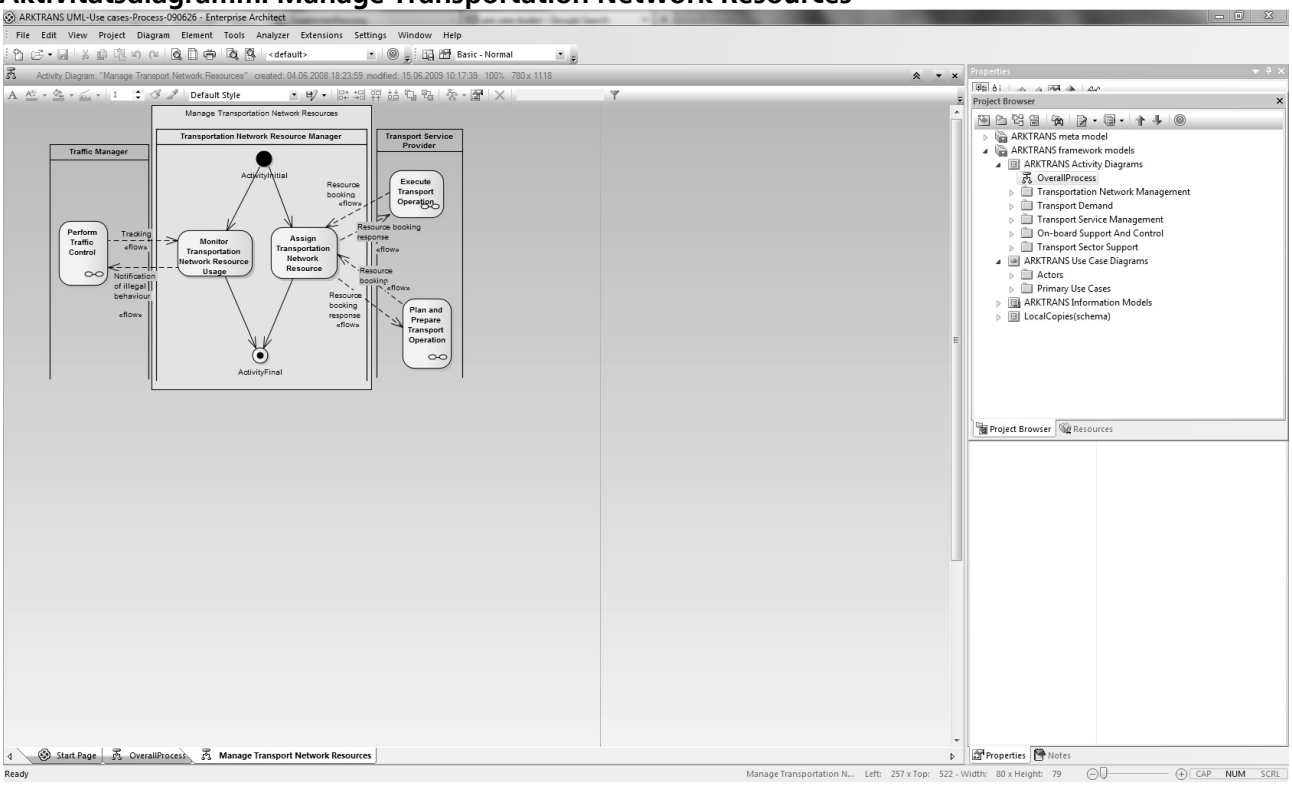

Bild 39: Aktivitätsdiagramm: Manage Transportation Network Resources

Aktivitätsdiagramm: Perform Operational Traffic Management

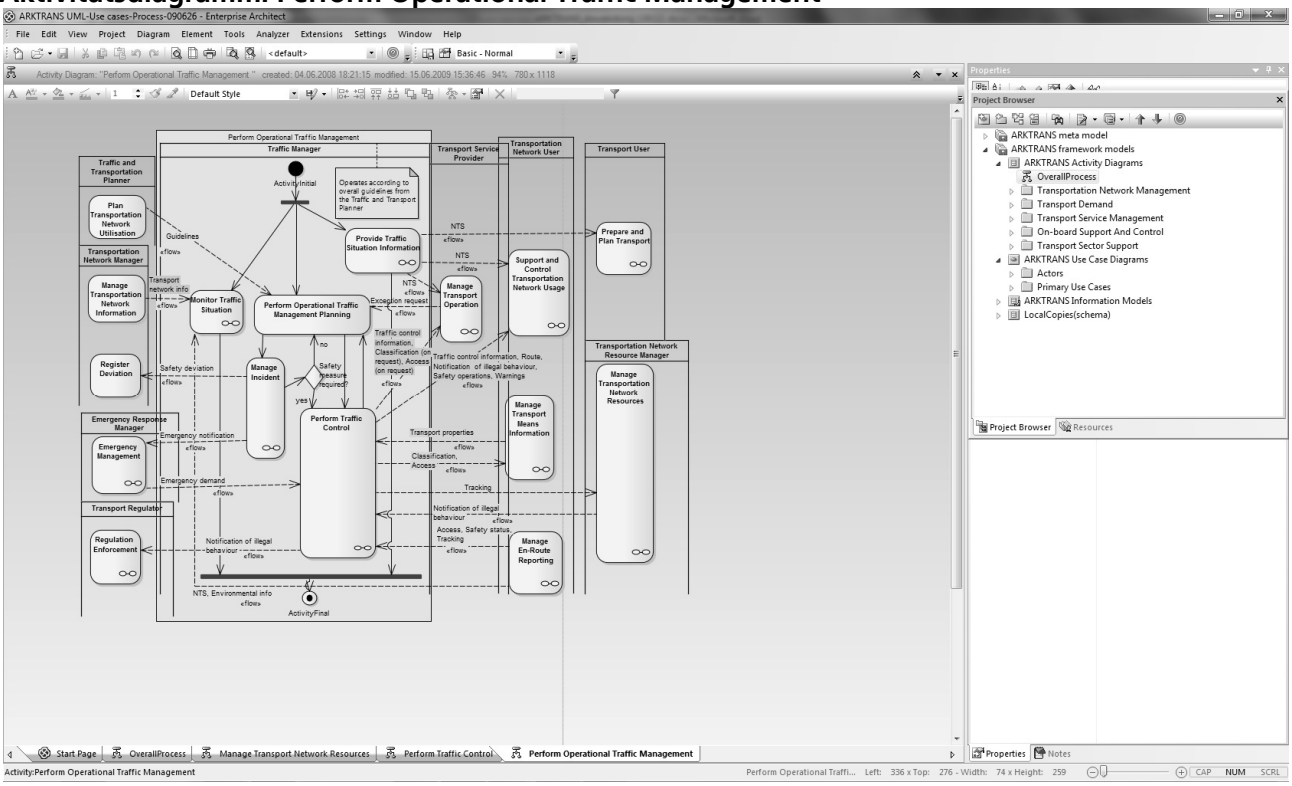

Bild 40: Aktivitätsdiagramm: Perform Operational Traffic Management

Aktivitätsdiagramm: Monitor Traffic Situation

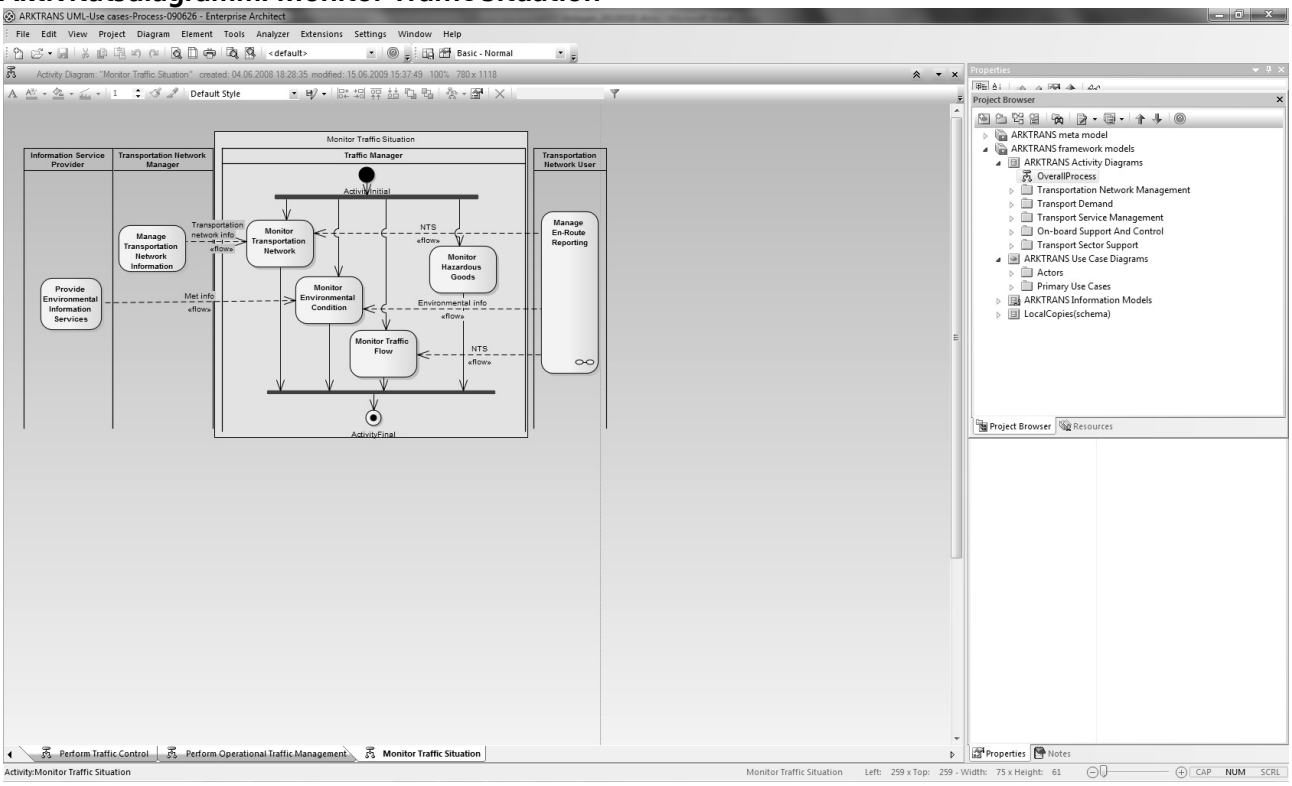

Bild 41: Monitor Traffic Situation

Aktivitätsdiagramm: Provide Traffic Situation Information

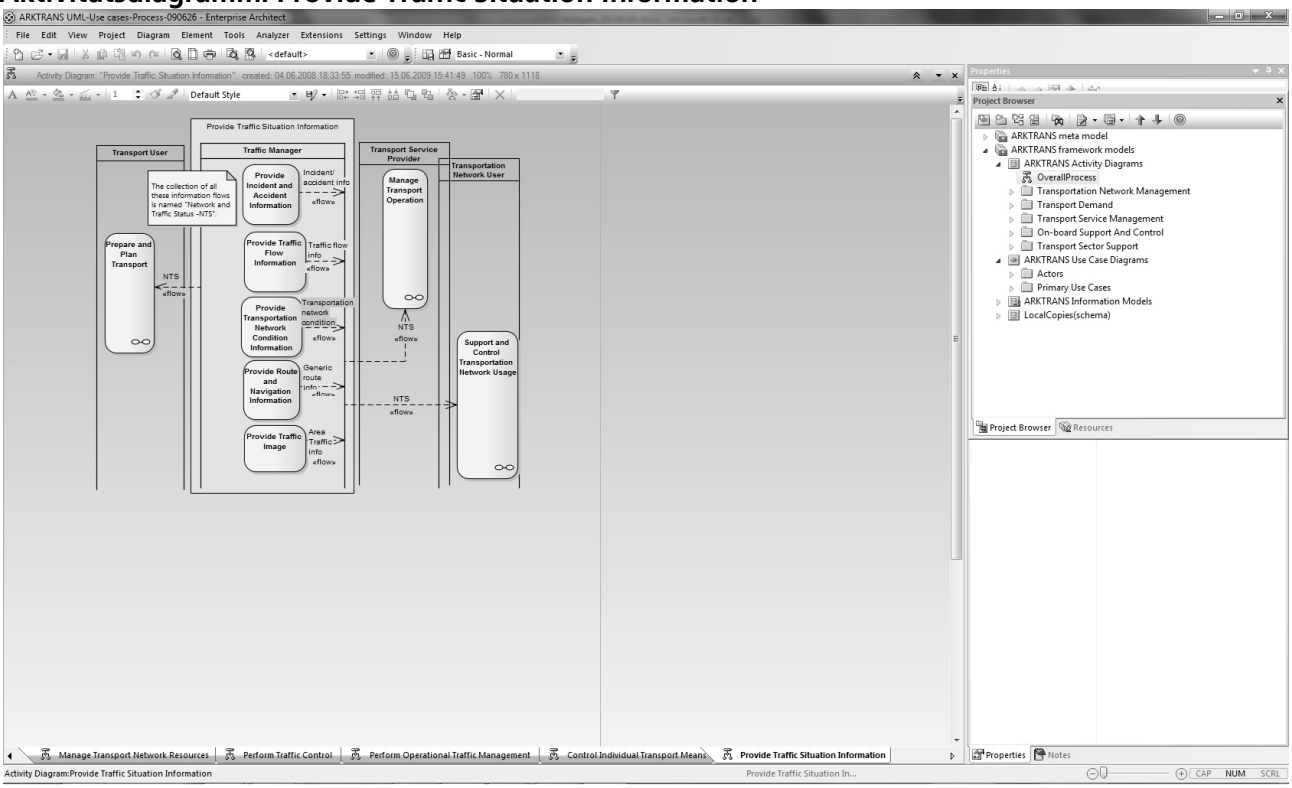

Bild 42: Aktivitätsdiagramm: Provide Traffic Situation Information

Aktivitätsdiagramm: Perform Traffic Control

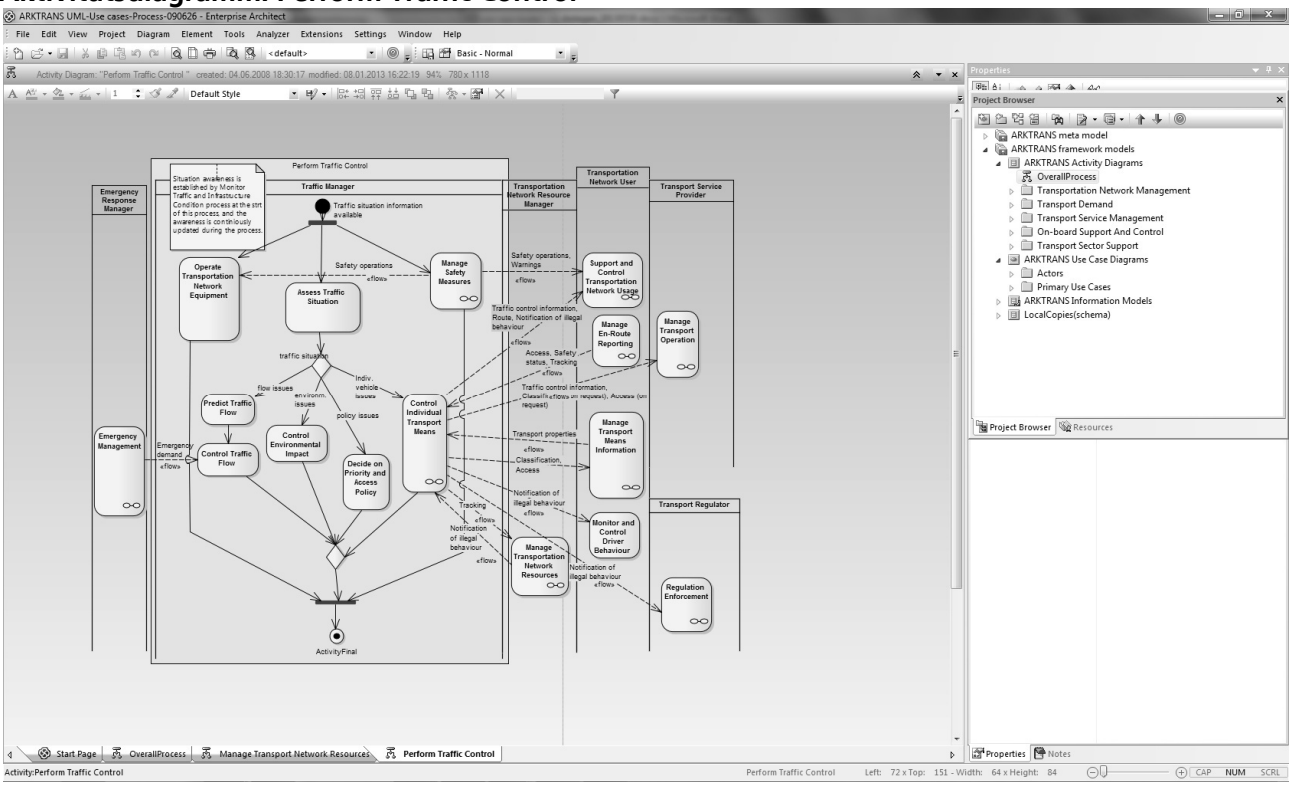

Bild 43: Aktivitätsdiagramm: Perform Traffic Control

A2.3.3. Information Viewpoint

Transport Network Resource Information

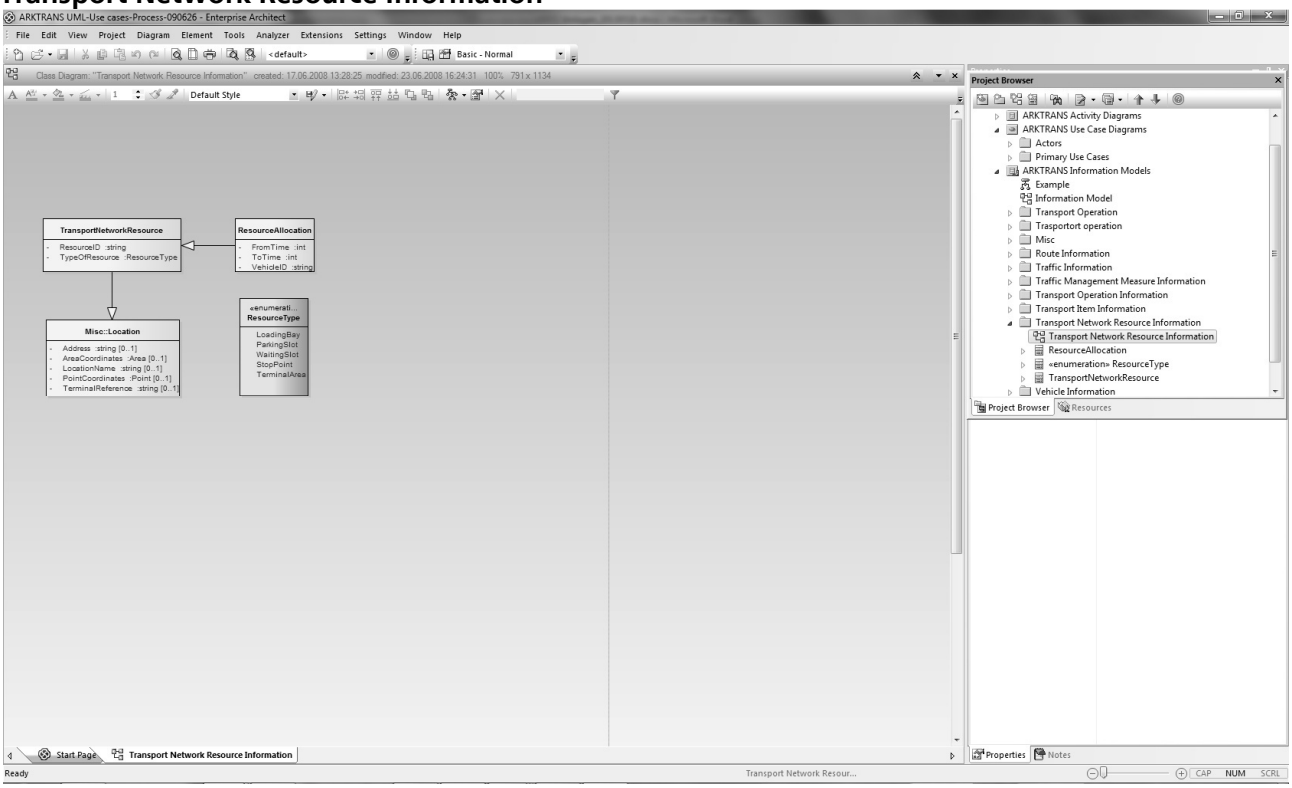

Bild 44: Transport Network Resource Information

Traffic Information

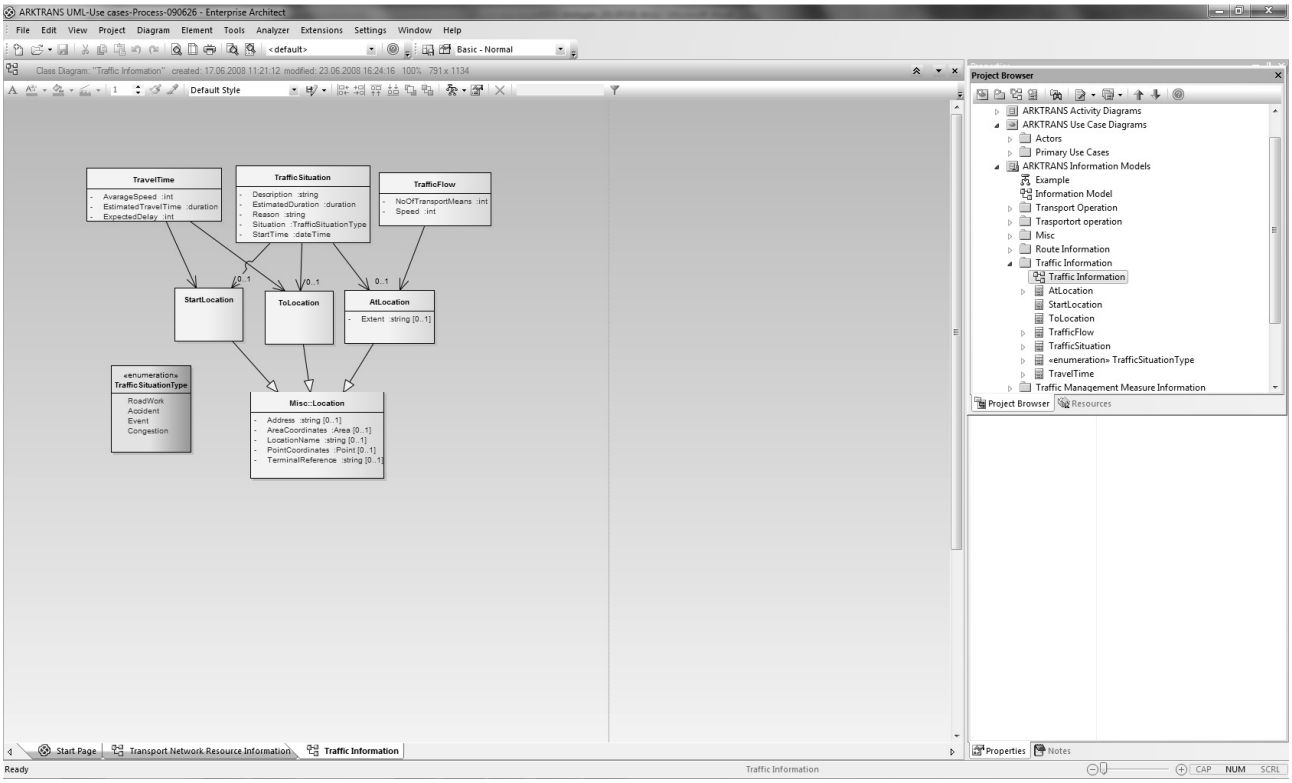

Bild 45: Traffic Information

Traffic Management Measure Information

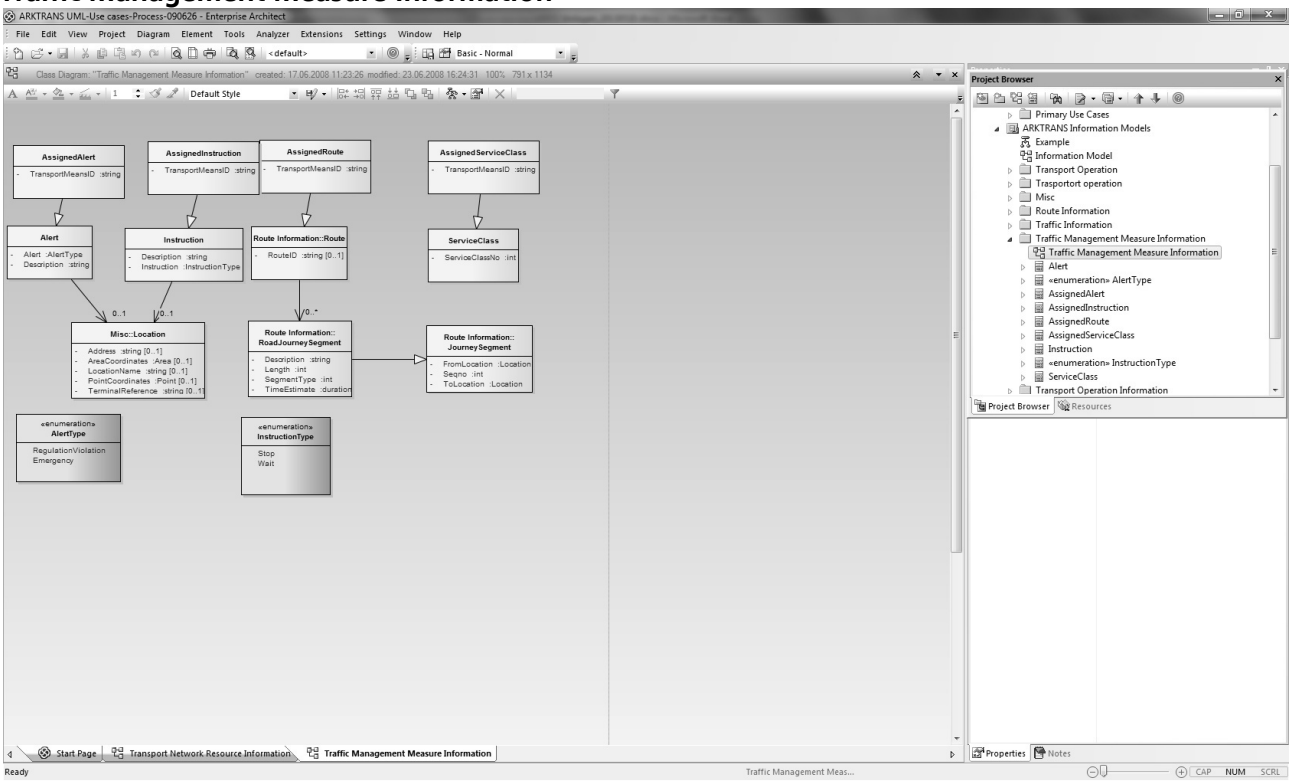

Bild 46: Traffic Management Measure Information

Transport Operation Information

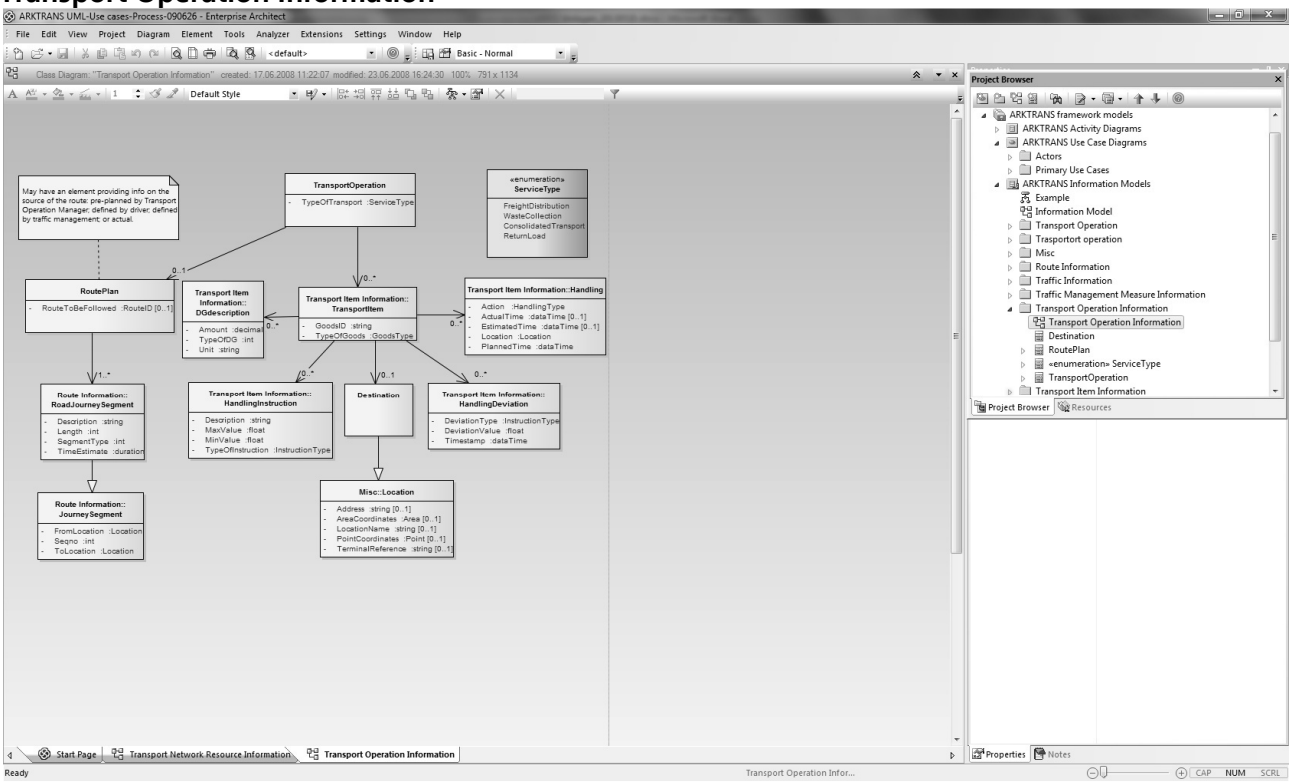

Bild 47: Transport Operation Information

A3.Methodische Grundlagen, Modellelemente (Ergänzungen)

Methodische Grundlagen (Ergänzungen)

ISO 10746-3:1996: Information technology -- Open Distributed Processing -- Reference Model: Architecture.

ISO/TR 26999:2012: Intelligent transport systems - Systems architecture - Use of process-oriented methodology in ITS International Standards and other deliverables.

DIN EN IEC 61508/IEC 61511: Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related Systems (E/E/PE, or E/E/PES).

Modellelemente (Ergänzungen):

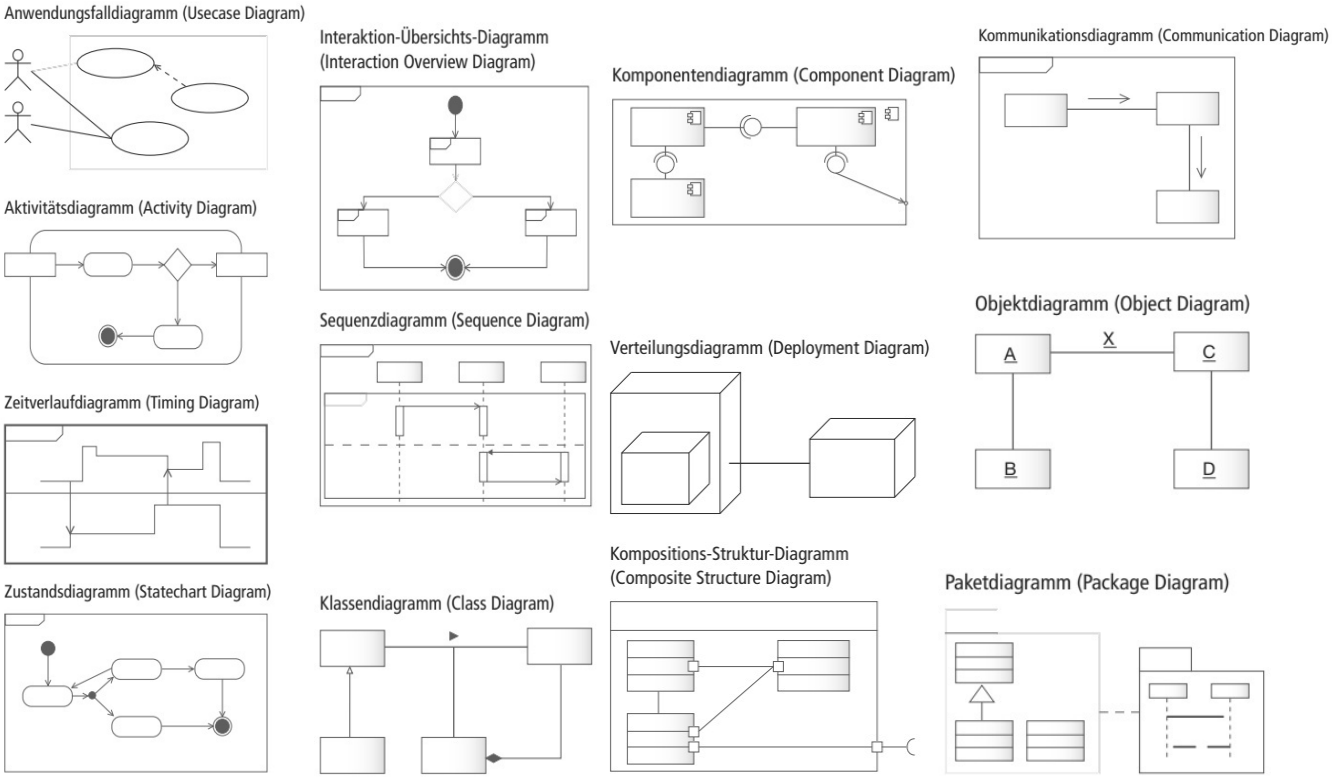

Bild 48: Vollständige Übersicht der UML-Modelle nach Grechenig et al. (2010)

Bildverzeichnis

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GRECHENIG et al. (2010): Grechenig, T., Bernhart, M., Breiteneder, R., Kappel, K.: Softwaretechnik. Mit Fallbeispielen aus realen Entwicklungsprojekten. Pearson Studium. ISBN 978-3-86894-007-7.

ITERIS (2012): Turbo Architecture Version 7.5.0.2. Online verfügbar unter: http://www.iteris.com/itsarch/html/turbo/turboform.aspx (letzter Zugriff am: 13.04.2013)

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